

THE QUEST OF REALITY

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PREFACE

MY previous book—*The Evolution of Consciousness*—dealt in the main with our perception of the phenomenal or material world. It was therefore generally criticised as a materialist work, even by some whom I supposed would have thought differently.

The present sequel attempts to assess our perception of the real world implicit in these phenomena; and on that account it will, I am afraid, be criticised from the opposite angle as too mystical.

The one charge appears to me as incorrect as the other. It is obviously convenient, and indeed necessary, to separate the two classes of experience; but in both cases I have simply followed evidence as I found it, and interpreted it to the best of my ability.

It happens, indeed, that I am not a materialist; certainly not from innate prejudice against that school—whose precision and definiteness strongly appeal to me—but solely because all the materialist systems I have examined seem to me incomplete, and ultimately inconsistent either with their own premisses or with the world as experience shows it to be. On the other hand, I have had none of the experience commonly called mystical.

Of the two types of mind into which men commonly divide, the rationalist admits rather less, the credulous accepts rather more, than the evidence ultimately warrants. So far as anybody is competent to judge himself, I should say that my general cast of mind, in these and other matters, is inclined towards the sceptical, and with a tendency to reject rather than admit doubtful or seemingly improbable evidence. I cannot persuade myself that, in an enquiry such as the present, this is altogether a disadvantage.

But I am not aware that this sceptical tendency is so strong as to forbid the acceptance, at any rate the consideration, of evidence simply because it is contrary to my personal preconceptions. Indeed, in many cases where I have been inclined instinctively to reject evidence at first sight on the ground of improbability, further study and the accumulation of more material has sometimes convinced me—rather against my will—that the original evidence was partly or wholly true; and the problem has then been to account for and accommodate a particular and perhaps peculiar psychic experience in a body of not always consistent phenomena.

This has sometimes required a rather extensive revision of conclusions which, although apparently logical as they stood, could not be maintained against further evidence. To reject outright is of course as easy as to deny the existence of difficulties; but it is neither satisfactory nor intellectually honest to do so.

Moreover, the attempt to explain all these phenomena by reference to the subconscious mind quite definitely breaks down in some crucial cases; that particular ship will accommodate a good deal of strange cargo, but there is a limit to its carrying capacity. It accounts, no doubt, for much psychic and religious experience. But any detailed analysis of psychic phenomena stretches it to unreasonable lengths, and makes altogether excessive demands on coincidence and collusion; while as an explanation of the supreme religious experience it seems wholly inadequate.

The method of investigation I adopted necessarily demanded a preliminary enquiry into the extent and limits of human faculty, and this in turn required some discussion of the problems of personality and freewill, leadership and genius. But in view of the very considerable mass of materials involved in such a discussion, it seemed both easier and clearer to treat the whole subject, as far as possible, in statistical form; a method which has at least the merit of compelling precision of statement, argument, and conclusion.

Figures, of course, can be made to prove anything, but only when they are selected to demonstrate a theory already determined; where they are accepted regardless of consequences, and permitted to construct their own theory, their evidence can hardly be neglected. And if it should be objected that statistics are unsuited to these particular problems, I could if necessary, take refuge behind the authority of Francis Galton, who held that figures alone could provide the compass with which to navigate "the infinite ocean of being"; and of Florence Nightingale, who believed that statistics were the key with which to unlock "the thoughts of God." However that may be, it has always been the bane of thought that words are more malleable than figures, and the attempt to escape that looseness is not necessarily discreditable.

I cannot, of course, expect to have succeeded in a task which inevitably raises the ultimate issues of psychology and philosophy. But there have been moments when I hoped that this enquiry would prove not entirely useless to other students of the problems of life and consciousness.

A. WYATT TILBY.

HOWSTEAN, FRINTON,
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THE QUEST OF REALITY

CHAPTER I

THE LIMITS OF THE SENSES

IN the *High History of the Holy Graal*, the sacred emblem of an unseen world was perceived for a moment by those who were worthy to perceive it, and then withdrawn from mortal ken. This profound allegory of the soul, unlike the tragic stories of human passion and desire with which it has been incorporated, has no definite end ; nor could it have, for the quest which it symbolises in the wild extravagance of a chronicle of chivalry has ever failed and is ever renewed by man.

From the beginning of recorded history, and manifestly long before, men have realised—as other living creatures apparently have not—that our perceptions and consciousness are confined to a mere fragment of space and time, and that the real world is consequently something other than the world we see. And therefore men have sought in every age to explore this mysterious world beyond the senses, in the belief that here was to be found the origin and meaning of things, the Isis behind the veil, the spirit inherent in matter, the unseen unity which is God implicit in the multitudinous and visible variety which is nature.

In that quest, the aim of all religion and philosophy, there may be progress, but there can be no end.

The real veil of Isis is the limit of our senses ; for these physical instruments ignore far more than they include, and the mind is directly conscious of less than the senses perceive. And reason as we know it, the finite balance of a finite mind, necessarily depends on the scope of consciousness, and is incapable of weighing things which escape perception

and therefore elude consciousness. It is always a fractional world that we assess, and we are permanently impercipient of its major character.

The lower ranks of life appear unconscious of these limitations; the world to them is the world they touch, see or hear, and they are ignorant of anything beyond these palpable perceptions. Man alone, by discovering the finity of the senses, has formed the idea of infinity; and by realising the transitory nature of individual consciousness, has achieved a concept of eternity.

But in what these things consist—or even whether they exist outside our minds at all—we have only vague and contradictory notions. And these notions in themselves are largely influenced by the primitive but persistent dualism or the somewhat later trialism of popular philosophy.

Those formidable assumptions may or may not turn out to be true. But it will be proper to abandon at the outset the old familiar hypothesis of mind and matter, and its younger rival of body, soul, and spirit as unproved intuitions or traditions. These convenient distinctions may ultimately be justified, but they can only be justified by the evidence; since further knowledge of the world of which we perceive so baffling and inscrutable a fragment may conceivably prove it a monism, a dualism, or a multitudinous and even anarchic pluralism.

The general character of the territories immediately beyond the frontiers of the physical senses is not obscure.

Two of the five instruments of perception—taste and smell—hardly concern us here; their limits are indeed evident, but they have no special significance for this enquiry. The range of the three remaining senses, however, practically gives us the external world we know, and their large exclusions must consequently be an index, if no more, of the greater world of reality whose existence they ignore.

1. *The Limits of Touch*.—The physiological analysis of touch shows it an extremely complex sense, or rather a combination of physical perceptions which varies greatly in different species. Primarily it is a register of heat and cold; secondarily a tactual guide that becomes sensitised or blunted according to the need and habit of the possessor.

The narrow range within which touch is capable of functioning as a thermometer is extraordinarily significant. At the lowest temperature that prevails naturally on this planet, life can neither be maintained nor produced; while long before its highest natural temperature is reached, life is again extinct. But these local extremes are nothing compared with the cold of the outer planets or the heat of the sun; and we must therefore conclude that life in any sense known to us is a relatively small factor in the universe.

Now consciousness as we know it directly exists only as a product of life; it is the apex of individual personality—a very limited mental selection from a rather less limited range of physical experience. But the natural deduction that all consciousness is therefore confined within these few degrees of temperature is far too large and wholly unproven; and after closer examination of this problem on a later page, we shall find reason to suspect that these personal and local limits can hardly be the full expression of consciousness in a universe whose major character is impersonal. For the moment, however, it is sufficient to note the apparent fact and the emergent doubt.

In its secondary character, as a method of tactual perception, touch is a local instrument of vast consequence to the organism it serves; all individual consciousness, in fact, is ultimately founded on the sense of touch and its specialised derivatives and extensions. Touch is directly responsible for a great mass of normal experience, and there are indications that it may also include more subtle powers which contribute to super-normal experience.

Consciousness is awareness and an absorption by the subject of some element of the object which it perceives; without this prior perception and absorption there can be no

consciousness. Now the origin of all physical absorption and mental awareness is the capacity of response to external stimulus, which is merely a primitive sense of touch. The living organism responds to many things of which it is not actually aware or actively conscious, but it is conscious only of those things to which it responds.

It may indeed admit, as a mental deduction peculiar to an advanced type of consciousness, that many things exist of which it is unaware ; it may endeavour to become aware of those things, and to some extent succeed. But in that event it has simply enlarged its field of consciousness, and consequently the area to which it responds. All mental ideas depend ultimately on physical perception, or deductions from those perceptions ; but the higher the type, the more sensitive and delicate is this mechanism of response and perception.

Now consciousness seems at first sight not to exist outside life, and even among living things there are many which can hardly be called conscious in any recognised meaning of the term. The faculty of active consciousness exists only where and as required by the needs of the organism.

When a physical organism, as in the case of rocks and stones, can exist without consciousness, it does so exist. When merely passive perception is sufficient for the organism, as with vegetation, then consciousness is no more than passive perception. When an active and intelligent organism needs an active and intelligent type of consciousness, then the active and intelligent type of consciousness appears. The need and habit of the organism determine the type of consciousness it develops. The supply of consciousness is roughly equal to the normal demand ; but life as a whole generates consciousness on the basis of minimum requirement for the individual.

But response is obviously far wider than consciousness ; it is common to the living and non-living. Water responds to heat and wind, iron to oxygen, tides to moon, moon to planet, planet to sun ; the whole ponderable physical world, although lifeless, apparently non-sentient and unconscious,

possesses the faculty of response to external stimulus. This faculty of response, reaction, and absorption of stimulus must therefore be recognised as an inherent property or possession, a kind of dormant consciousness or nascent sense of touch, which is common to the whole physical universe.

The conclusion is inevitable that the whole known physical universe possesses the partial awareness which, although not indeed consciousness as we assess it, is nevertheless related to consciousness as the foundation to the superstructure.

We have yet to discuss in a later chapter whether that greater portion of the universe which is unknown can possess a similar or higher form of consciousness. At first sight, indeed, it looks as though consciousness were the unique product of life, with free will as the unique product of consciousness. But in fact we find that every constituent of the living organism is derived from the world around us, and it cannot therefore be maintained that the product of these very ordinary constituents is entirely unique in nature. Rather must the possibility be considered that this quality of consciousness, like these material constituents, is also derived from without. It is unique indeed in the sense that it is the highest form of response and awareness known to us, but it is obviously improbable that it is unique in the sense of being an entirely isolated phenomenon in nature. And as we find that our consciousness communicates with other forms of living consciousness by means of stimuli perceptible to the senses, so we shall be forced eventually to assume—at least as a working hypothesis—that in the first instance a larger and perhaps universal consciousness has communicated with us by similar stimuli perceptible to the senses.

The attempt, indeed, to limit consciousness to life raises intolerable difficulties and contradictions, and finally breaks down as altogether impossible ; and it will become necessary to consider whether energy does not exist on different levels or platforms, of which ponderable material substance is the

lowest, while life is superior to lifeless matter, and consciousness superior to life. And the more closely we examine the apparent source and ultimate nature of consciousness, the more closely will this hypothesis seem to approximate to the probable truth.

For the time being, however, we may leave this grave problem. But it is already clear that only a small portion of the known universe has attained life, and only a small portion of life has become actively aware of itself and the external world, in other words, achieved consciousness in our meaning of the word. And it is of fundamental importance in this connection that the earliest forms of life develop directly out of the lifeless materials from which indeed they are hardly distinguishable.¹ There is no recognisable break in the continuity of the process; and this invisible step from non-living to living, and again subsequently from unconscious to conscious, is therefore ultimately definable as a quickening of response and consequently as a development of touch.

The primary limits of touch in regard to temperature are therefore simply the limits of life itself; but the successive extensions and enlargements of tactual perception are essentially a localised and more highly sensitised form of universal response which is restricted to the living organism, and which forms the basis on which active individual consciousness has been built.

2. *The Limits of Sight.* Sight is, to man at least, the most important of the specialised senses. Touch is necessarily local and tangible, but sight brings us into relation with the distant and general; and most of our ideas of the external world are built up through visual perception. In this we differ from many of the lower mammals, with whom smell

¹ This conclusion, which undermines the vitalist theory and a great deal of dualist speculation, is argued at length in Moore's *Biochemistry*.

The chemical elements of least atomic weight predominate over the heavier elements in the living organism, and it is significant that these lighter elements are the most widely distributed in the universe. They are also its more active constituents.

The vitalist theory probably derives from our consciousness of freewill: see Chap. 2, Sec. 1.

is often the chief instrument ; but to the majority of human beings, and nearly all birds, sight has become the dominant sense.

Its achieved supremacy has led to large physiological and psychical developments, and has had important consequences for human philosophy. Seeing is proverbially believing, an idea that at first meant no more than something seen, and even imagination—the faculty of making mental images—was originally a psychic development of physical sight. The inclusions and limitations of sight are therefore of primary consequence to our conception of reality ; for normally we are conscious only of what we directly perceive, and do not miss the larger area that we fail to perceive.

The limits of sight are extremely remarkable. The human eye perceives only the middle colours of the spectrum ; it is an instrument definitely graded for the medium tones in its particular range. Moreover, it ignores objects below a certain size, and a whole realm of minute life thus escapes us.

Further, it misses or misjudges objects more than a certain distance away, and thereby affects our primary conception of space ; and still more important, it misses or misjudges objects travelling above or below a certain medium speed, and thereby affects our primary idea of time.

A glacier moves, but we do not perceive its movement. A tree grows, but we do not see it grow. Both processes are too slow for direct visual appreciation of the change.

On the other hand, railway sleepers are not individually visible when travelling more than fifty miles an hour. Nor can the eye distinguish the revolutions of a piston or ventilating fan in rapid motion. And a shooting star is a mere streak of light across the sky. These things move too fast for accurate visual perception.

Yet our perceptions are always of motion, and of variety and contrast of motion ; for the senses perceive nothing but motion and the phenomena consequent on variety of motion. But obviously we are not always aware of it as motion. Our visual perceptions are merely of certain forms

of motion, of which we interpret the slower and more ponderable forms as essentially material ; while our perception of light is not directly conscious of it as a thing that moves at all, but regards it as something wholly immaterial that either exists or does not exist.

It is true that the microscope, telescope and spectroscope have enormously enlarged the field of natural human vision, but these artificial extensions have in no way modified the primary mental judgment which springs directly from the limitations of sight. When things move below a certain speed, the mind instinctively classes them as static, and consequently refers them to space ; above a certain speed, it ranks them as dynamic, and consequently refers them to time.

For that reason it is usual to say that we perceive space but not time, and matter but not energy ; in other words, that we see a phenomenal world, but that the real world, of whose existence we are nevertheless aware, escapes unseen. But this unseen world, by an inexplicable paradox, seems wholly dissimilar from the seen, yet inalienably connected with it ; and it is because of this paradox that man has evolved the pregnant idea—of which the germ was probably suggested by the interpretation of his dreams and a primitive philosophy of sex—of a fundamental dualism of nature.

By an easy extension of the idea, the more active and apparently spiritual element has been identified with the masculine ; while the slower moving, and therefore passive or material element, derives its very name of matter from the maternal or feminine.

This elementary dualism is probably valid enough in its way for every day purposes of practical life, which is directly concerned only with perceived local fragments of space and time. But it has also been imported into the larger province of philosophy and religion, where it has provided an insecure foundation for many a towering system that has presently crumbled into dust.

Its currency has been long and seldom questioned in the commerce of thought ; but dualism still remains, and from

its nature must always remain, a provisional and personal, not a final and general assessment, of things. And we may therefore suspect that ultimately it will prove so inadequate as to be completely misleading.

For in fact the distinction between seen and unseen, on which all dualism is probably based, is not of something fixed and inalterable in the scheme of things. It is the mere limitation of our eyes which constructs this illusory boundary between appearance and reality ; between the so-called spatial and material, and the temporal and spiritual worlds.¹

And in some disillusioned and anarchic mood, we may perhaps permit ourselves to wonder whether all the derived dualisms of the schools—temporal and eternal, finite and infinite, subject and object, good and evil, and the mysterious dualism of Ego and Cosmos—may not ultimately prove similar shadows of the mind ; sharp and true in outline in the position in which we stand, but destined to move as we move, to change as we change, and in the end to disappear as we disappear.

3. *The Limits of Hearing*.—Hearing, the youngest of the five senses, betrays a similar history of limitation and selection, and an extraordinarily significant record of enlargement.

Our ears identify the middle notes in the scale of sound, but the upper and lower ranges of vibration escape us.

But the sense of hearing has a peculiar interest for this enquiry, since the auditive faculties show a definite physiological advance as the biological rank increases which is obscured by rival or counter influences in the case of touch, and is by no means paralleled in the development of sight.

In the lower forms of life hearing either does not exist at all, or is little if anything more than a general bodily sensitiveness to sound-vibrations, which is hardly distinguishable from touch. The cochlea is rudimentary in fishes, more developed in amphibia, and shows a further advance in

¹ The distinction is most sharply expressed by St. Paul : " The things which are seen are temporal, but the things which are not seen are eternal."

reptiles. In saurians and crocodiles, and among birds, the cochlea gradually becomes spiral; and in the mammalian series the spiral form advances until hearing reaches its greatest perfection.

The true summit-level of hearing, however, is not the instant recognition of sound by the more intelligent quadrupeds, extraordinarily acute though that may be within its limits.¹ To the hunted animal a noise is merely a general warning of potential danger and therefore a command to take cover; to the hunter, an indication of game. But apart from the call of his kind—which every animal with a true sense of hearing recognises—the hunted does not discriminate sound; every noise is a warning. And to the hunter it is merely an indication that the game—or something else—is afoot; but he hunts by smell or sight, not hearing.

The actual discriminations of hearing are limited among quadrupeds to some half dozen easily recognisable signals.² Beyond that elementary range, a noise that is not a warning of danger is merely a meaningless sound. Among birds, which have attained a higher aesthetic development, and take pleasure in their own and other's song, these harmonic discriminations are perceptibly more advanced; but it is doubtful if there is any real appreciation of music among mammals below the level of man.³

Music in our own kind has, however, advanced steadily from the mere rhythmic noise-making of primeval magic through melody to harmony; its composition has demanded the construction of successively more complex instruments; and the simple combinations of early classical composers have expanded into the vast orchestration of the present day, in times historically quite recent. Music has recently

¹ There is some evidence that dogs, mice, and perhaps horses, as well as pheasants and certain other birds are sensitive to sounds which escape us; and various insects also seem able to perceive sounds inaudible to the human ear.

² A domesticated animal, such as a dog, may of course be trained to further discriminations of sound. But these seem to be individually acquired and not transmitted; although they probably could be fixed by training a long series of generations, in the same way as other faculties.

³ A few alleged instances have been recorded. I do not wish to be unreasonably sceptical, but I could wish for more convincing evidence.

been the most progressive, as it is undoubtedly the greatest, because the freest and most creative, of the arts ; but marvellous as its achievements have been, there is no reason to assume that it has reached its zenith.

But the very fact of this advance suggests that the human ear may still be increasing the delicacy of its perception. The greatest modern music would have been unintelligible to an Athenian audience ; and hearing still remains the most variable of the senses. Many cannot accurately distinguish one note or even a tune from another,¹ and to some unfortunates the most exquisite melodies—those supreme creations which seem to bring a world of eternal harmony into this noisy hubbub of time—convey no meaning whatever. Intellectually they may be otherwise quite adequately endowed, but towards music their attitude is quadrupedal.

The reason for these extreme variations in the susceptibility of the ear is probably the fact that music, as distinguished from warning noises, is a luxury rather than a necessity of life ; at least, we do not find these individual differences paralleled as regards the understanding of language, which is a direct necessity.

But again, it is only among human beings that hearing has acquired the extreme delicacy and precision demanded by articulate speech. And so sensible has man become of the unique power conferred by speech that he has attributed miraculous and even supernatural force to the utterance of mere words and incantations, and has imagined that the very soul of a person resides in his name ; while one potent school of philosophy has regarded God Himself as a divine Word.² Man's admiration for the product of his own faculties could hardly go further.

¹ Macaulay, a strong visualist, could hardly recognise " God Save the Queen."

² The fact that the Logos connotes reason as well as speech, indicates that reason, like speech, was presumed to be confined to man alone in life—a proud but entirely erroneous assumption.

The power of speech to conjure and bind spirits, by spells and incantations, was no doubt deduced from early hypnotic experiment. But philology itself confesses that this particular claim was set too high—the conjurer has become a mere entertainer, the incantation has sunk to the chant, and the perfunctory piety of the chant has given us the word cant.

The development of language has certainly stimulated the sensitiveness of the human ear,¹ but the real origin of speech must be sought in the increasing mental necessity of intelligible communication between individuals. Speech, therefore, carries us definitely across the uncertain and probably fluctuating frontier line of development at which the external physical senses no longer perceptibly advance, but progress is made through an increase of mental perception.

Mental Perception.—The crude distinction between physical and mental perception is in some sort familiar to us all ; but it is extraordinarily difficult, and probably impossible, to give a precise definition of these occasionally obscure and contingent differences. Perhaps the easiest, though hardly the most direct road, is to take a liberty with the Kantian phrase, and to draw a distinction between the Thing, the Meaning of the Thing, and the Thing-in-Itself.

There is no very great difference of local visual or auditive perception between the more intelligent quadrupeds and man. Due allowance being made for variations of height from the ground, angle of vision, and the customary radius of outlook, the dog and his master perceive much the same immediate physical world.²

But while actual physical perception of the Thing is very much the same as between the dog and his master, the mental perception—the Meaning of the Thing—shows so great a difference in degree as to be almost a difference in kind.

And the Thing-in-Itself, I take it, can be none other than the still unperceived Meaning of the Thing.

A page of printed newspaper makes very much the

¹ Parliamentary reporters, whose work demands concentrated attention to the spoken word, can follow a speech which to the casual listener is a mere mumble.

² In order not to confuse the argument, I purposely omit the perception of birds, whose normal angle of vision necessarily gives them a quite different aspect of the physical world.

It is probably his nearness to the ground which makes a dog judge men by gait, not faces. A lame man's dog will mistake another lame man for his master a few yards away.

same general impression on a dog's eyes as on mine ; that is the Thing. But beyond the actual feel and look of the paper, it carries no definite impression to his brain. It means even less to him than a page of printed Arabic to me ; for although the language is unknown to me, I know that the symbols are in fact intelligible, that they convey a message, and that, if necessary, I could obtain the key which unlocks that (to me) meaningless cipher.

The dog's mind realises nothing of this. He knows vaguely that there is such a thing as speech, and within certain narrow limits, follows something of its meaning, particularly when helped out with gesture. But of the profundities, the niceties, and varieties of speech he has no conception ; and the idea that the essence of speech can be carried through space and time by a line of type is far beyond him. The Meaning of the Thing is therefore practically nothing to him ; but to man it may be the messenger of life or death, of heaven or hell.

It is the same with music. A Beethoven concerto or a Chopin nocturne is a wonderful experience to a musical man ; it is one of those rare and precious things which, like friendship, even familiarity makes more dear. But a dog is frankly bored with these proceedings.

Yet his ear hears exactly the same notes—indeed, he may hear a little more. But obviously these rhythmic combinations of noises convey no harmonic message to his brain. The Meaning of the Thing, which to us is a revelation of the Infinite, is to him the mere vexation of the dull ear of a drowsy dog.

What, then, is this deep Meaning of the Thing, which to us so often outdistances the actual Thing, so that the mere words of a play of Shakespeare, for example, seem little in comparison to the world of significance they possess ?

We shall have occasion later to examine mental perception in our diagnosis of genius,¹ but it may be noted here that this faculty—"the mind's eye" (and the mind's ear, nose,

¹ Chapter 2, Section 5.

and mouth)—is essentially a psychic extension and enlargement of physical perception.

The brain is a sounding-board which evaluates the notes struck upon it. Primarily it receives and translates these physical perceptions ; but mental perception acts as a kind of internal telescope which enlarges these concrete images, and enables us not merely to register and translate them, but to penetrate their superficial meaning. The ordinary man has sight, but some few have insight ; the ordinary man sees a primrose, but a Wordsworth sees a whole world of meaning in the primrose. The more developed and powerful the brain, the greater will be these mental perceptions, and the deeper the Meaning it attaches to the Thing.¹

The physiological history of these psychical developments is in many respects obscure.

There is on the whole little difference between the normal physical perceptions of individuals ; their mental perception show a far greater range of variety. In some the latter are almost entirely absent—the Philistine's attitude to art is the notorious example—in others there is an exquisite sensitiveness and extreme delicacy of appreciation. This greater variability of mental, as compared with physical perception, alone stamps it as a later acquisition and development.

Concurrently with the physical advance of the senses as life pushed upwards from amphibia and reptiles to birds and mammals, there had taken place of necessity a continuous and complex process of mental readjustment and development. But it is obvious that there came a point at which the enlargement of physical perception was no longer of definite utility to the species. We may regret this curious and not easily explicable limitation, which has excluded from direct experience the greater part of potential reality, but of the fact there can be no doubt whatever.

¹ This may be illustrated even in the same individual. An intelligent child reads Gulliver, finds it a splendid story, and no more. Thirty years later the grown man picks up the book, and recognises the pungent satires of a titanic intellect. The boy's brain gets the Thing, the man the Meaning of the Thing:

The activities of the progressive organism, however, continued to increase and it absorbed more energy to carry on its enlarged and heightened power of living. This increment of energy was absorbed by the whole body, and part at least of this additional power was directed to the increase of perception, but it was now, as it were, thrown back from the physical eye or ear to which it had become superfluous. It accumulated at the rear of those organs, as a modification and enlargement of the brain, but nevertheless retained something of their specialised character and was thus transformed into the nascent faculty of mental vision or audition, which henceforth attached a larger meaning to things seen or heard.

But it was not only the faculties of specialised mental perception which were thus in process of being enlarged. The whole size, capacity and general power of the brain was increasing; for as it perceived more meaning with its psychic eye or ear it necessarily became capable of larger ideas, and in some exceptional cases achieved a combination and synthesis of ideas. It is this enlarged capacity for ideation and thought, a mental rather than any physical superiority, which distinguishes man from his collaterals. Every animal forms or inherits certain ideas, and thinks or reasons within its mental limits;¹ but man is the only animal whose ideas and thoughts have reached the synthetic stage at which they produce a philosophy.

The ideation capacity of the human brain is, however, almost certainly far from fully developed—if it were, we should be better organisers and incidentally better philosophers—and it is probable that the faculties of mental perception are still advancing. They advance, however, in the first instance, individually and not collectively; the genius is an individual with more mental perception than his fellows, but even the genius is usually gifted only in one particular direction—he is primarily a visualist or an auditive, and his other faculties remain quite ordinary.

¹ Habits or instincts are essentially fixed ideas.

A Leonardo da Vinci, who excels in every way, is still the rarest of our kind.

The Faculty of Imagination.—The centres of mental perception are not yet fully localised by physiologists, but their existence is no longer in doubt. And it is clear that, although they derive from and generally operate in conjunction with the purely physical organs of perception, they may, and sometimes do, operate independently.

It is through the faculty of mental rather than physical perception that we realise the existence of a larger world than our physical senses perceive. And it is this mental perception of the limits of the physical senses, and consequently of the existence of the unseen and unknown, which stimulates imagination, that superb and unique human faculty which bursts these constricted physical windows of the soul, and takes the universe in fee. It is true that in the normal way we see things physically before we experience them mentally, and it is the habitual formation of physical images that eventually crystallises into mental ideas, and in the long run limits those ideas. The great mass of ordinary experience is thus directly physical, but if the intellect were entirely confined to these physical perceptions acting on the mind we should be poor indeed. It is because the mind also acts on the body—in other words, because mental perception makes us conscious of the limits of physical perception—that man has been able to enlarge his mental empire.

Imagination, the pioneer in this new world, is obviously the product of a finite and temporal mind ; since there would be nothing unknown for an infinite mind to imagine. The essential character of imagination is, and must always be, a mental perception of the physically unknown translating itself in physical symbols of the known ; and therefore a stretching forth and reaching out of the finite and temporary towards the infinite and eternal. And it is extraordinarily significant that this infinite is always apprehended as psychic, but necessarily expressed in terms of the finite and physical ; for our own physical limits speedily return to check our

psychic adventures, and the translation or interpretation of the unknown in terms of the known may therefore be inaccurate or even grotesque, as the records of religious art and mysticism too abundantly attest.

The basis of all physical perception is response, and the basis of all mental imagination is sympathy ; and sympathy is thus the higher and more psychic form of physical response. But man is not on the whole a very imaginative creature, and most of us take the world mentally very much as we find it physically. And since we are apt to follow the lead of others, in the sphere of imagination as well as in ordinary everyday experience, we are inclined to believe what we are told we ought to believe. Imitation creates fashions in imagination as in other things.

It is a general rule, however, that the greater the mental perception, the greater the imagination ; in these cases the mind is often stronger than the body which it inhabits, and it develops at the expense of the body. But it is the fact that the man of great visual imagination sometimes sees less and not more with his physical eyes than his fellows.

These are certainly the exception, for physical sight is generally stronger than mental vision, and on that account most of us are inclined to mistake the superficial appearance of things for their total reality. But we are all familiar with the exception—the man who seems to use his eyes for the special purpose of not seeing, the man who looks through rather than at things. This originates in the sustained concentration of the mind on one particular aspect to the neglect of everything else—the specialised scholar who ignores everything except his own text or period is the familiar type ; but it is also the source of the seer, the visionary, the contemplative, and a whole mass of purely subjective experience. In all these cases the mental perception (or visual imagination) has weakened or overpowered the normal physical apprehension.

Hearing is on the whole less susceptible than sight, and auditive imagination of the creative kind is certainly rarer than visual ; mainly for the reason that the eye is more

independent of the external world, as well as more generally dominant, than the ear. The eye can be opened or shut, by a simple effort of will, whereas the ear cannot refuse to admit sound—a fact which may drive the musician nearly to frenzy as the discordances of this outer world interrupt the harmonies of his soul.

Further evidence that mental perception may operate independently of its physical counterpart is provided by disease. The blind man still sees things with his visual imagination ; the deaf man, as the famous case of Beethoven attests, may still compose immortal music which he can hear only with the mental ear. And Luciani gives some contrasted instances of psychical blindness and deafness, in which the physical senses were not affected, but the psychic centres were irresponsive.¹ These cases quite definitely demonstrate the reality of the distinction and the occasional almost complete independence of physical and mental perception.

The physical senses seem on the whole to have reached their normal maximum of efficiency, and, in man at least, to have advanced little in comparison with mental perception. But their limits are not fixed and inalterable ; our physical perceptions retain their ancestral bounds because those frontiers are the rough measure of current utility.

If that measure were ever enlarged, the normal frontier of the senses would expand, for it is the fact that these physical perceptions can be educated by individual training. The artist's eye discriminates shades of colour, the musician's ear differences of sound, imperceptible to the ordinary man. In these cases an excess of mental perception, shown by love of one particular stimulus, seems to be transferred to the physical avenue, which acquires super-normal sensitiveness, usually at the expense of some other faculty.² The individual

¹ *Human Physiology*, Vol. 3. "There are cases of word-blindness on record in which postmortem examination showed a lesion of the second left parietal convolution ; this includes the angular gyrus, which in our opinion represents the anterior portion of the visual area of man."

² This is equally true of certain specialised uses of touch, taste, smell ; e.g., the connoisseur in wine, the tea-taster, etc.

unit, in fact, retains roughly its normal energy-content, but unusual excellence in one direction is paid for by unseen inferiority in another.

These exceptional accomplishments generally perish with the individual, precisely because they are individual.

There can be no doubt that a nation of artists, could such be called into being, would have finer visual perceptions than a nation of Philistines, but in fact no such nation exists; and unless some wholly unexpected change in environment made it a condition of survival that every fit person had an artist's appreciation of beauty, no such nation is likely to exist.

The average level of ability and achievement is maintained with very little change from generation to generation. The children of the exceptional man are likely to inherit the exceptional potential capacity—which may or may not come to fruition—rather than the particular individual talent of the parent; but they tend, as a rule, to revert to the normal performance of the rank or class in which they were born.¹ Continuity is the rule of life, progress the rare exception.

Reason and Sanity.—The brain, being finite, cannot enlarge itself without increasing the area of its responses and reactions. It is at once the registering machine of the external or objective world, and the calculating machine of the internal or subjective world; but the one depends always on the other. In a word, the brain cannot calculate beyond its own physical register of perception.

In a previous work I put forward, but did not elaborate, the theory that reason must be considered the operative balance of the living organism. I suggested that reason is "the measure, not the mass," and remarked that "reason is in fact nothing more than the scales in which acts and their consequences are weighed."² The implications of that theory will now become evident.

All scales may be true and perfect to the limit of their

¹ Chapter 2, Section 3 and 5.

² *The Evolution of Consciousness*, p. 195.

capacity ; but no scales can weigh beyond their capacity. Now the physical and mental capacity of living creatures differs ; and therefore their reason differs, not indeed in essential quality, which is always the same, but in gross capacity. The scales will weigh up to the limit which the organism is accustomed to register, but not a scruple more.

A caterpillar's reason is as good as a cook's on the essential subject of cabbage, but it does not go much further. A dog's reason is at least as good, and possibly better than, its master's, on various physical matters, but it is simply not aware of many mental problems which puzzle the man ; its brain does not register them, and consequently its reason cannot weigh them. And there is equally no doubt that human reason, like human perception, being limited, we ourselves fail to register and weigh many matters that would be within the scope of higher intelligence.

The balance of reason is, therefore, universally the same, but the scope of the scales differs in every species. The capacity of the rational measure depends finally on the mass of experience it measures, and anything that enlarges experience will in the long run enlarge the scope of reason.

A man is not more intelligent than a dog because his reason is greater ; the precise contrary is the case. His reason is greater because his intelligence is greater, and his intelligence is greater because his experience is greater. Reason always follows and tests experience, not experience reason.¹ And in an organism such as man, who does from time to time advance a little, the perceptions will therefore tend to be slightly stronger than the reasoning capacity.

It follows that the scope and balance of reason in every species is determined by ancestry. The organism creates its own controls and inhibitions as it goes along, but the norm of present sanity is fixed by past experience. The

¹ Blake held something of this kind when he wrote, " Energy is the only life, and is from the body ; and Reason is the bound or outward circumference of Energy. Energy is eternal delight."

Like most mystics, he distrusted reason ; " Swedenborg did wrong in endeavouring to explain to the Reason what it could not comprehend." But the distrust sprang from the fact that his perceptions and experience were extra-normal, whereas his reason was normal.

majority of men (and indeed all other animals) are rational or sane because they follow the traditional behaviour of the stock. Continuity is justified of its children; the race carries on.¹

But in the end it becomes so habitual to regard the normal and traditional as right that we are apt to judge everything abnormal as wrong, and to conclude that anything which departs from the average standard of mass-behaviour is irrational or degenerate or insane.² Yet this is not necessarily true.

The general tendency being repetition and continuity on the same level, the upward as well as the downward curve is abnormal. But the completely balanced and normal organism cannot progress; it can only repeat. Only the abnormal has the possibility of progress, for it may enlarge experience and eventually set up a fresh balance at a higher level.

On that account the history of the world has in the main been made by men in whom perception was stronger than reason.³ Genius may seem to have achieved impossibilities, but that is because its faith in itself—which springs from consciousness of power—overbears the traditional restraint of the ancestral rational measure.

Sanity is the average mental balance of the species at the place and time of existence. But the abnormal man is not necessarily below that average. He may be above it, and therefore ahead of his time.

¹ Obviously the ordinary processes of physical and mental growth may from time to time disturb the regular balance of the organism. At adolescence the physical balance is often seriously disturbed, and the same may be true of mental growth and the cessation of reproductive power in these and later years. In most cases the necessary readjustment is achieved continuously and automatically, but in some instances, where the individual is suddenly exposed to a heavier stress than ancestral experience had known, the result may be a permanent twist or bias in the scales.

² All education, for example, is a training in conformity. It is very significant that the Bible depicts Satan as the first nonconformist.

³ For this reason rationalism fails to satisfy the mind; it limits itself to what is known, and ignores (or denies) the larger area that is unknown. Progressive periods in history are always romantic rather than rationalist; romance implying the conquest or at least the perception of new territory, rationalism the consolidation of the old.

We shall now see whither these arguments lead.

Supernormal Perception.—The normal perceptions of our senses are true. Indeed they are probably nothing but the truth. But they are certainly not the whole truth. They are our small selection from truth, the amount of truth it is necessary for us to know. And, since we do not know anything directly except through this agency, the perceptions of the senses are the meaning that truth has for us.

The senses, then, are instruments of selection, and therefore of limitation; and their normal range is well ascertained. But the mind does seem from time to time to receive impressions—different in quantity, conceivably even in quality—from a rather wider area than the normal range of sensation. And this apparent increase of faculty raises very difficult and controversial questions.

A vast number of super-normal and psychic phenomena are recorded in history. Many of these are false, at least falsely told, exaggerated or fraudulent; and much of what is commonly called super-normal experience (particularly in religious matters) although perfectly sincere, proves on examination to be subjective, and therefore in fact reminiscent or imaginative and not real experience at all. But there can be no reasonable doubt of the genuineness of some of these occurrences, and we are therefore confronted by two separate problems.

In the first place, we have to distinguish real experience of a super-normal kind from subjective experience that is the product of mental vision or imagination; and this is not rendered more easy by the fact that both sometimes occur to the same individual. In the second place, we have to explain or interpret the real super-normal experience.

Now it is clear that abnormal psychic phenomena must be attributed to (a) hallucination; (b) extension or enlargement of the normal senses; or (c) direct intuition or discovery by some other and non-physical, at least non-sensitive means. Each of these alternatives has been favoured by different enquirers.

Hallucination (or imagination that is accepted as real by

the percipient) is the easiest solution, and it is sometimes correct. But it is too easy, and also it is insufficient. It may describe a superficial fact, but it does not explain the process which produces the phenomenon. It does not account, or attempt to account, for genuine and demonstrated abnormal experience. And the tendency to use the word as a kind of dustbin for all unwanted psychological phenomena does not really explain anything.

An extension or enlargement of the normal senses seems the most probable explanation on *a priori* grounds. But *a priori* reasoning is notoriously suspect; and it remains to be seen whether this too covers the facts.

On the other hand, a direct intuition or inspiration of the mind without the intermediate agency of the senses has always been the popular explanation of these phenomena. But this is the most difficult solution of all from the scientific standpoint. We may be driven to accept it; but the moment we do so, we shall have to abandon the maxim that there is nothing in the intellect that was not previously in the senses. That axiom may not, of course, be universally true, but at least it has served so long, and proved so trustworthy, that it can hardly be abandoned without convincing evidence.

(A) If these phenomena are non-sensible, but are directly communicated to the mind from without by some unseen agency, we are here confronted with an exception to every known law of physiology and psychology. That need not unduly disturb us, for so-called natural laws are only generalisations from experience, and may have to be revised in the light of more experience. But in addition we are faced by another difficulty.

If a direct intuition between mind and mind, or between mind and some event distant in space or time, is possible, there seems no sufficient room for the errors and mistakes that we have in fact to account for in super-normal psychology. Granted the existence of such an intuition, we should expect the hits but not the misses of psychic phenomena. And in any scientific study of these occurrences, the

acknowledged misses are as significant as the admitted hits.

Moreover, with one important but only apparent exception—which will be mentioned later—I can find no sufficient evidence that these direct intuitions exist in fact.

(B) On the other hand, we continually receive impressions of the external world. All of these that we can certainly identify enter by the sense of touch, or one of its specialised derivatives, and are registered within. The majority hardly reach the level of consciousness, but they influence the organism nevertheless; a number, however, do reach the level of consciousness and are consciously interpreted and evaluated.

In most cases, as normal experience attests, the mental interpretation of ordinary physical impressions is automatic and correct—at least from the egocentric standpoint of the living organism. But where the impression is more novel, the interpretation is more difficult; and the translation—if we may so call it—from the language of sensory perception to that of mental concept may puzzle us. And at times the interpretation, or translation, is demonstrably wrong.

Occasionally, no doubt (as in great poetry), the translation is more beautiful than the original. At other times it is merely a wrong translation—and if this is accepted as correct and harboured by the mind, it becomes hallucination. We have all, for instance, suffered from the hallucination that the sun moves round the earth.

But all normal experience, and the great bulk of super-normal experience,¹ shows that there is no translation into mental concept unless there is first a physical perception by the senses. And the fact that we are by no means always conscious of the exciting external cause or of the primary physical perception in normal experience is a further indication that even the few apparent exceptions in abnormal experience may not in the end prove exceptions at all.

Our ideas, and even our imagination, rest fundamentally upon perception; for we can form no idea, and cannot even

¹ See Chapter 6 for an analysis of super-normal experience.

imagine, that which we have not in some shape or form perceived.

Imagination has been defined as our perception of the unknown translated into symbols of the known; and hallucination is nothing but imagination gone wrong. It too rests on perception of the unknown, but its translation into concept is distorted and inaccurate. It is real to us, but it is not reality.

(C) But the physical and mental register of the senses is not entirely constant. Some persons are more sensitive than others—they receive more, or their mind registers impressions more deeply; others again, are impercipient, or their minds may tacitly ignore or defiantly reject the message of the senses. Probably a good deal of super-normal experience is thus lost by the will not to believe.

But it is obvious that these super-normal perceptions are peculiarly liable to misinterpretation, precisely because they are rare, and outside the normal experience of the species. In some cases of clairvoyance, indeed, they are almost photographically accurate; but in others they are ludicrously wide of the mark. Undoubtedly they exist, but we are never sure of their veracity unless they are supported by independent testimony.

This extreme diversity of psychic experience, ranging from high accuracy to grovelling folly, seemed to me at first utterly inexplicable, and for long it appeared to offer no secure foothold for rational enquiry. But when I came to examine the evidence patiently in detail, in the hope of finding some general principle that would account for the misses as well as the hits of super-normal phenomena, one main line of explanation was slowly but quite definitely forced upon me.

Our normal senses have developed as extensions or specialisations of the primary sense of touch, and an analysis of super-normal experience shows that this has followed the same general path of perception. The bulk of super-normal, as of normal experience, seems to be received directly through the two major instruments of sight and hearing.

But certain cases of super-normal experience can only be interpreted (at least if we reject the theory of direct intuition) as an occasional enlargement of the general faculty of touch slowly becoming receptive of a wider, or perhaps of a more delicate range of impressions. They have not yet reached the status of a specialised sixth sense, and therefore they must still rank provisionally as subjects, albeit reluctant and occasionally rebellious subjects, of the great inclusive empire of touch.

But these abnormal perceptions, like other and more familiar experience, are transmitted to the brain. They are a direct and real experience, and are sometimes interpreted with astonishing accuracy and exactitude of detail. But precisely because they are unfamiliar, they are liable to be incorrectly translated. The brain itself may be incapable of dealing with them ; it is in the position of a man who hears a strange language. He may hear perfectly, he may even understand something, but he cannot grasp the full meaning of the words.

In some instances these subtle physical perceptions produce a purely mental impression, more or less precise, which is accepted as a direct intuition or thought-transference. These cases are on the whole rather rare, but there are indications that telepathy may be more frequent than we suppose, although the possibility of coincidence and self-deception makes this difficult to demonstrate.

In other cases the brain refers these abnormal perceptions to its visual or auditory channels, where they are symbolised or dramatised, and reproduced in consciousness as visions or auditions along the lines (and therefore with an inevitable admixture) of customary and normal experience. It is on this account, I think, that we are often unable either wholly to accept or reject psychical or mystical evidence. The experience is demonstrably real, and something of this conviction of reality clings to and permeates the translation, grotesque and inaccurate as it may be in detail. But like a clear mountain stream descending through the boggy lowlands, the river of experience is coloured by its journey,

and carries with it the mark of local and familiar circumstance.

For two reasons, therefore, we can never accept super-normal experience unless it is independently demonstrated to be true. In the first place, it may be merely subjective, the product of a brooding and quickening imagination which, if accepted by the percipient, becomes hallucination. This is not properly super-normal experience at all, but it may pass for such, and confuse the whole problem. And in the second place, when the experience is actually real, it is often distorted or confused by the percipient with his own pre-conceptions.

Some of the cases on which these deductions are based are set out in the following pages, but to recapitulate the whole evidence would require a book in itself—and a very tedious book—and I must ask the reader to believe that I have not come lightly to this conclusion, nor do I put it forward without having weighed other solutions which, although at first sight attractive, proved on further examination unsatisfactory.

The conclusion arrived at above, however, does seem both scientifically and practically tenable. It accommodates all genuine psychic phenomena, and accounts both for the hits and misses of abnormal experience; the hits being those in which these abnormal perceptions are correctly translated, the failures and hallucinations those in which a real experience is incorrectly symbolised and misinterpreted.

The Beatific Vision.—To this general conclusion we shall, however, discover one extraordinarily important, but only apparent exception.

Our senses perceive only a limited world of things, of space and time; but they do not directly perceive the reality inherent in these things, or the medium in which space and time and things exist. Yet an analysis of space and time makes it evident that such a reality and such a medium must in fact exist;¹ and there is abundant testimony that men have been persuaded that they do now and then

¹ Chapters 3 and 4.

become aware of this silent and eternal medium, this intangible and invisible foundation on which space and time and our world of old familiar things depend.

The beatific vision of the saints may indeed be illusion. But when it does occur, it carries with it a quality of assurance and potency of conviction which nothing can shatter ; for those who have this experience feel that they have been in direct and actual communion with the supreme consciousness of God.

We shall have to examine this summit level of the mystical life in some detail in a later chapter. But it is at once obvious that the claim itself raises very difficult considerations. In the first place, ordinary consciousness can be aware of everything within its range except itself. We cannot directly experience our own consciousness, or have direct contact with another consciousness—it must come to us through the vehicle that contains it, and by means of the stimulus that conveys it to our senses. It is therefore, hard to see how we can perceive this supreme consciousness directly without the intervention of these familiar stimuli and senses. And in the second place, it is not less difficult to see how the senses can directly perceive this ultimate reality and this medium in which space and time exist, since their competence is restricted to the phenomenal world of space and time.

It is evident that the consciousness of a finite organism must itself be finite. But it is also true that there is a sense in which the finite mind is larger than the physical organism which it inhabits, from the mere fact that it is aware of things outside itself. There is nothing in the intellect that was not first in the senses, but the messengers to the senses, and therefore, the food of the intellect, may have been transported a few feet or thousands of miles ; a warning noise a yard away or the light from a star a billion miles away are both stimuli whose message flows inward to the central recording point of individual consciousness. We are far less aware of ourselves than of events outside ourselves.

The mind, then, of the living organism is finite, like the body, but it is nearer to the universal, and therefore, to the

infinite, than the body ; and its awareness of the external permits it in some degree to transcend the physical organism in which it is immanent. It is conditioned both by space and time, but it is capable of conceiving existence outside space and time.

And indeed it may be precisely because the individual living instrument is finite that its consciousness is conditioned by heredity and environment, limited in space and time, and therefore physical and dimensional in character. There is no escaping the fact that it is so limited. And yet there are moments when men feel, and perhaps feel truly, that these conditions of life not merely limit but actually obscure the true nature of consciousness ; that these are the local accident of the thing rather than the essence of the thing-in-itself ; and consequently that consciousness can only be conceived as neither spatial nor temporal, conditioned neither by ancestry nor environment, and ultimately neither physical nor dimensional. Whether that is true or not, however, it is evident that this is not our little unit and measure of individual consciousness, but some greater unit of which we have normally no knowledge.

For it is, of course, clear that the mechanism of life cannot contain more than its own measure ; the smaller the cup of consciousness, the sooner it overflows. The living organism is compounded of earth, air, and water, and it cannot exist without these material elements. But we shall find eventually that its consciousness derives from light, and without light that consciousness cannot exist. The life, therefore, of the organism is terrestrial, but the source of its consciousness is extra-terrestrial. This strange unity compounded out of duality will concern us later ;¹ but meanwhile it is evident that all consciousness derives from without,²

¹ Chapter 5.

² The poet, the artist, and the mystic all recognise inspiration as a thing that comes from without, is absorbed within, and expressed according to the genius of the individual. But this is in fact only a partial statement. It would be more true to say that all consciousness, and not merely those overtones which we call genius, is derived from without, absorbed within and there conditioned and expressed according to the racial past and individual present of the living instrument.

and is alike in its source, but its amount is conditioned by the capacity of the living instrument which generates it.

And this consideration will inevitably raise the question whether consciousness is of one quality and texture throughout the universe, or whether quantity, use, and purpose make a difference to the quality of the consciousness generated by the organism.

As to that, I think there can be but one answer. The consciousness of an individual varies in youth and age, in sickness and health, according to the capacity of the living instrument that generates it. The consciousness of a worm or mollusc is manifestly on a lower plane than that of a horse or dog, as the passive response or latent consciousness of a tree or shrub is on a lower plane than that of a worm. The primary source of consciousness is in every case the same—light from the sun—but the response is so different in different ranks of life, and the quantity of conscious energy generated by the individual unit varies so greatly in amount, that in fact consciousness exists on different platforms or levels of efficiency, and these differences in local quantity must be held to amount to a real difference in quality.

But if this is so—and we shall investigate these cases of mystical illumination later in some detail¹—this whole problem of consciousness and its allied or contingent issues will be found ultimately explicable only on the ground that consciousness exists in eternity as well as in time, and on the assumption that even finite individual consciousness has its moments of exaltation in which it recognises its own true nature. And in the last analysis we shall find that it does this, not in the least in opposition to the senses—for the energy absorbed through the senses has manifestly helped it to reach this summit level of human experience—but by beginning truly to understand itself, and its kinship with the ultimate reality of which the phenomenal world of the physical senses forms part. It is therefore not so much a contradiction of normal experience, as an enlargement and expansion of that experience by reference no longer to the part but the whole.

¹ Chapter 6, Sections 3 and 4.

CHAPTER II

THE LIMITS OF HUMAN FACULTY

SECTION I.—THE EXTENT OF CHOICE AND FREEWILL.

THERE are other limits to the individual living organism than those imposed by its sensory perceptions, and these we have now to consider.

Every mechanical organism is fed with fuel from without, and its competence is necessarily conditioned by the amount of power it can thus absorb and utilise. In this respect at least the living individual is no different from any other machine ; it is in fact a complex mechanism of multiple and highly specialised parts.

It is true that these do not always function smoothly as a unit—the ego may develop subsidiary or superfluous selves, and its unity become obscured by a divided will and incompatible desires, which make for indecision and ineffectiveness in its physical and mental attitude. But however straight its course and however excellent its performance, the living machine will not accomplish more than a certain amount of work, or last more than a certain length of time—the development and duration of the living, as of the non-living, machine are both keyed in advance to a certain maximum limit of speed and stress.

The living mechanism, on the other hand, unlike the non-living, may possess, or at least seem to possess, a certain freedom of action. But its freedom, like its competence, is strictly limited ; and the nature and extent of this liberty must next occupy our attention.

Almost as soon as man began to think about himself at all he must have realised that he was a free agent. But

hard upon the heels of this discovery came the inevitable recognition that his liberty was limited ; and the more he thought, the more was he convinced both of the fact of freedom and of the certainty that it was conditioned. Some were more conscious of the liberty than of its limits ; others more conscious of the limits than of the liberty. Some regarded life as wholly distinct from matter, the one being free and ultimately spiritual, the other mechanical and inherently unconscious ; others held that the world was a single unit, and that the course of life was predestined by external facts beyond human control.¹

Each school maintained its own side by seemingly irrefutable argument, but neither could destroy the other, and the contradiction has remained a recurrent but insoluble problem of philosophy. The thinkers of India and Egypt, of Greece and Arabia busied themselves with the intractable equation of human liberty and divine predestination ; the universities of Christian Europe could not escape it. The debate lasted centuries, and ultimately involved assumptions as to the Grace of God and more immediate difficulties as to the moral nature of man which provoked long and bitter controversy.

Dante, suspected of heresy on this subject, declared in a famous passage that the mysteries of fate and freewill were buried so deep beneath the foundations of the earth that even the spirits in paradise were not informed of the solution. Philosophers and theologians, however, rushed in where angels feared to tread ; and the Roman Church, more tolerant of this than of many other speculations, only discouraged the discussion after the great battle between Jesuits and Jansenists in the 17th century. The Church of England, in the heroic attempt to fix Canterbury exactly midway between Rome and Geneva, tacitly confessed its inability to do better by drawing up an article of faith which has no intelligible meaning whatever. The debate, in short, was entirely inconclusive, and eventually died a

¹ The old quarrel still survives in the vitalist and mechanist schools of biology, which are respectively libertarian and determinist.

natural death; for the political theorists who succeeded the theological gladiators contented themselves with a cursory curtesy to the great system of Spinoza at the same moment that they assumed the existence of human freedom, and then ignored the problem altogether.

A modern survey of this ancient battleground, long since neglected by the Church and deserted by the State, proves on the whole more fruitful as an index to the character of the contestants than as a clue to the nature of things. The scientific mind, mainly concerned with law and general principle, tends always to emphasise the determinist aspect; the humanist, on the contrary, mainly concerned with personal values, always recognises human freedom as a reality. Paul, Augustine, and Calvin thought in terms of predestination, Christ in terms of freedom. To the former the fate of the soul was determined in advance of its birth, and the number of the elect was fixed by God before the foundation of the world. To the latter it was sufficient that "the truth shall make you free"—one of the greatest, as it is one of the most difficult sayings in the Gospels.

Science has since pressed the humanist hard in other fields. We no longer believe that the wind bloweth where it listeth—we know that it is conditioned by the rotation of the earth and the laws of atmospheric dynamics. But the parallel assumption that the human spirit is free as air still survives; nor is the delusion—if it is a delusion—decisively shattered, as it should be if untrue, by history. Luther's protest—"Here stand I; I can no other"—may sound equivocal in this connection. But other great moments of human action at least seem to have been free. Cæsar crossing the Rubicon; Clive deciding against the advice of his colleagues to fight Plassey; Nelson turning his blind eye to superior orders; Napoleon escaping from Elba—in all these there appears to be something more than the enforced reaction of an automaton to external stimulus.

It is true, of course, that the whole evidence of external nature attests the existence of a closed and determinate system. Yet we, who are part of nature, are convinced

that we possess freewill ; and next perhaps to life itself, we cherish this freedom as the greatest of our possessions. Even those who hold the determinist position most strongly in theory hardly admit that men are irresponsible in practice, and if they find their spoons in the burglar's pocket illogically send for the police. What, then, is the explanation of this enigma and apparent contradiction ?

A problem shelved is not a problem solved, and the alleged solutions which I examined seemed to me to rely too much, as is the habit of philosophers, on speculation in the air, and too little on observation of accessible fact. I therefore set myself to collect evidence that seemed likely to bear on the subject, in the rather forlorn hope that this pedestrian method might throw some little light where the eloquence of saints and sages had only made darkness more visible.

It seemed indeed clear at the start that in many things under our hand freedom is absolute. A man can, for example, either read or not read a book in his library ; take tea or coffee to his breakfast ; stay in bed on Sunday morning or get up and go to church. Unless all the processes of consciousness are illusory—an assumption which would destroy the very basis of thought, and is not ratified by commonplace everyday action—it is difficult to see how this type of freedom can be disputed, or can be more absolute than it is.

Obviously, however, there are limits to individual freewill. A man can run instead of walk, but not fly instead of run—freewill can make legs move faster, but no amount of freewill can make human arms function like a bird's wings. We shall find reason to suppose that it may slightly prolong or shorten an individual life, but it cannot make a man live a thousand years. The living organism, in short, is conditioned as a machine, with maximum and minimum points of efficiency ; it is a machine for the capture of energy in order that it may go on living. But it is something more—in virtue of its freedom it is not wholly mechanical. The difficulty is to calculate what this variable quantity of freedom may amount to.

Freedom Depends on Variety and Conscious Choice.—But these considerations also make it clear that freedom depends on the existence of choice. The ultimate basis of all liberty is alternative selection. Where there is choice there may be freedom ; where there is no choice there is no freedom.

Now choice depends in the first place on variety ; if there were no variety there would be no choice. And in fact the first thing we discover about life is its extraordinarily interesting variety ; only far later do we come to realise the essential unity behind the multitudinous detail of things.

But choice depends in the second place on perception of variety ; if there were no perception of variety there could be no effective choice. The mere existence of an alternative is not choice, only the awareness of its existence. Without consciousness, then, choice is potential and not actual. Its origin is objective, its reality subjective.¹

Choice is therefore confined to consciousness, and only that which is conscious has freedom. But the areas of consciousness and freedom do not coincide, consciousness having a far larger area than freedom. I am, for instance, conscious of the existence of both Mars and Manchester. Unfortunately, much as I should like to spend a month in Mars, I cannot go there ; and much as I detest Manchester, I have been there. The limit of effective choice, and consequently of freedom, is therefore accessible or available choice.

And effective choice depends, in the third place, on active preference and selection of one accessible variety over another ; a cardinal fact which, as we shall find later, implies the existence of surplus power and an excess of available energy in the organism that selects.²

The essence of freedom, then, is choice and the perception

¹ Subjective choice, of course, depends on our idea of value ; and while the ideas are individual, the values are permanent. But this lies outside the general problem of freewill.

² This is illustrated by social life, in which the poor may have the same preferences as the rich, but less power to exercise them. They have sunk below the level which confers effective freedom.

of available choice, and when we know the area of available choice we shall know, at least theoretically, the area of human liberty. In practice, of course, its extent may be considerably less, since men do not always exercise their option. With this secondary limitation, however, we are not at the moment concerned.¹

But a critical analysis of the elements of available choice at once dissipates any idea that it is unconditioned.

The Limits of Conscious Choice.—Biology indicates a precise mechanical inheritance of dominant and recessive factors, and there is no reason whatever to suppose that humanity is an exception to the rule of life. The individual is made up of fragments of ancestral units, whose development will be affected by time and circumstance, but whose original composition is fixed and inalterable. Further, we have no choice whatever as to place and time of birth, and none of species or sex. These physical limitations reduce the quantity—not necessarily the quality—of individual freedom to very small compass.

Closer survey diminishes it still further. Freewill is only part of consciousness, consciousness only part of what the senses perceive, and our senses take in only a small part of reality. Moreover, we have little choice of physical perception; yet it is from the perceptions of the senses that the whole furniture of the mind derives.

Smell and hearing are both involuntary; only by holding the nose or stopping the ears can scents or sounds be excluded. In sight, too, we can only make negative rejections by closing the eyes or turning the head. We can, therefore, limit the range of perception, but we can only extend it when young by careful training along specialised lines—the education of the craftsman or the artist, which develops one sense at the expense of another, without, perhaps, increasing the total capacity. The discriminations of taste

¹ There are large fields, of course, in which choice is free but hardly ever exercised. Every Englishman, for example, is free to change his religion, and aware of this freedom. But the number who change their denomination is small, and the number who leave the at least nominal profession of Christianity for Buddhism or Mohammedanism infinitesimal.

are of similar character, as the gourmet can attest ; and touch, the parent of all the senses, is educable on the same lines.

Choice in matters of touch, however, is only operative as regards things within reach of the one who chooses. I can, for instance, put out the lamp and light a candle at my pleasure ; I cannot so put out the sun and light the moon, however much I may prefer moonlight to sunlight. The range of choice is, therefore, in the main a matter of local and physical contact.

So far, then, as the senses are concerned, the limits of individual capacity are determined, or nearly determined, in advance. Choice is the rudder that steers the ship of life, but it is a very small rudder for so great a ship.

It is probable, indeed, that if we were to breed steadily for any one purpose—the improvement of vision or hearing, for example—those particular faculties would improve slightly in a number of successive generations ; possibly at the expense of other faculties.¹ But we do not in fact consciously so breed for any one purpose. Broadly speaking, then, the extent of choice (which is objective) and freedom (which is subjective) seem to depend on the sense of touch. But the statement as it stands is neither sufficiently comprehensive nor precise ; for the range of touch depends ultimately on our power of locomotion. And here the advocates of liberty find themselves on firmer ground.

Passive and Active Movement.—All life moves either passively or actively. Vegetation moves passively in wind or water ; animals move actively in earth, air, or water, either with or in opposition to the wind or current. Vegetation may, therefore, be said to possess will in the broad physical sense of an unconscious will to live, but it has no power of locomotion or independent movement. And it follows that only animal life can possess freewill, which is purely mental, since it can only exist in active consciousness.²

¹ The advance of sight and hearing seems definitely to reduce the acuteness of smell.

² Some few plants possess a limited power of discrimination, which

This freedom expresses itself in active and independent movement, which indicates an excess of energy and a reserve of power within the living organism that enables it to lift itself above its immediate environment, and if necessary, change that environment. If it were not for this reserve of power the hungry beast could not go in search of food, or seek its mate, or repair its nest or burrow; and this surplus of individual energy, which is clearly necessary to maintain animal life, is the source of freewill, for it enables the individual on occasion to choose the abnormal path of greater rather than the normal path of least resistance—a course for ever impossible to the passive life of vegetation or unconscious matter. We may, therefore, define freedom further as the current unused surplus of the will to live, the available excess of energy by which we not merely live, but have life more abundantly.¹ Freedom only exists when the individual organism has a surplus of energy available for use, and then it is only operative as far as that surplus goes. Once that surplus is exhausted by the organism, its freedom temporarily ceases.

The Limits of Free Movement.—There are sharp limits, of course, to our freedom of movement; we can modify, but not entirely change, the environment of life. Man is very largely the creature of local circumstances!. He is strictly confined to the surface of the earth; he cannot penetrate downwards through solid matter; nor can he climb upwards more than five miles without serious effects on the consciousness and will.² We are bound by the

enables them to reject innutritious food. This is the nearest approach in the vegetable world to the perception and selection of choice which is the basis of freewill. It is probably near the level of consciousness, but not quite active consciousness.

¹ This enquiry is not particularly concerned with the problem of free-will among other animals than man. It exists, but in the lower animals apparent choice is little if anything more than tropism and automatic reaction—a bare step above the pure mechanism of lifeless organisms. In the higher ranks, the exact periodicity of the breeding season and the precise punctuality of bird migration suggest that (apart from choice of mate and home) freedom is confined within very narrow limits indeed.

² "Mountaineers have often observed a lack of clarity in their mental state at high altitudes. Not only is it difficult to think straight in thin air, it is difficult to retain desire to do anything at all. The mere weakness

specific gravity of the material medium into which we were born ; but within these narrow limits mobility is the key of progress, and in the last analysis it is the fact that we move faster than things in our neighbourhood which gives us what measure of freedom we possess. But the fact that we move faster is simply the result of possessing a surplus of energy ; for all action involves expenditure of energy, and we must possess energy before we expend it. Speed capacity is, therefore, an index of surplus power.

The upward urge of life may be conceived as a turning back from a descending series of slower motions, increasing inertia, and diminishing values in the physical scale of unconscious matter ; and an ascent towards quicker motions, increasing activity, and higher values of consciousness. Speed alone is not indeed decisive, or the horse would beat the man ; there must be intelligence behind the speed. But intelligence and speed are closely parallel qualities,¹ and speed is an important, probably an essential factor in success, because it gives first choice of food, or flight or battle ; it typifies the active attitude to life, as opposed to the passive defence of armour, which implies lethargy. Leadership is itself the result of speed ; “ they that run in a race run all, but one receiveth the prize.”

Speed exhilarates, but it also implies danger ; the man who puts “ safety first ” as his rule of life travels slow. He has no great surplus of individual energy—since speed means expenditure of effort—and, therefore, no great amount of freedom. The adventurer, the pioneer, the gambler in life’s counters has that surplus, and either gets things done or ruins himself in the attempt. The truly dominant type is the more active, the more intelligent, and often the more predatory organism that travels fast, takes risks, and lives dangerously. For that reason all progress comes through the individual, since only the individual can lead ; “ he travels the fastest who travels alone.” Leadership of a man’s will when starved of oxygen is beyond everything likely to prevent his success.”—*The Assault on Mount Everest*.

¹ Intelligence is in effect mental speed—rapidity in seeing and seizing an opportunity. Stupidity is proverbially slow-witted.

ship, therefore, which depends on physical or mental speed, involves solitude and separation from the mass.

It was said above that we have no choice whatever as to our entrance into the race of life, and it will be shown later that we have not much choice as to our exit. But we are concerned at the moment with our freedom within that circumscribed radius, and here athletic records give the best index to the extent of human freedom at the period of its physical maximum.

Athletics represent the idea of speed pushed to the extreme limit of which the unaided human organism is capable in one particular direction; with the advantage that the potency of this idea can be measured with exact precision. And since the difference between the best and the average performance is probably much the same in every department of life, the physical superiority of the athlete over the ordinary man will give us roughly the measure of possible mental superiority in other occupations which are insusceptible of exact calculation.

No man ever became a great athlete who had not some initial physical advantage, but every man can run faster than he can walk, and no athlete ever won a running championship against his will. It is clear, therefore, that athletic records (which are very carefully kept) are of peculiar interest in this enquiry, for they exhibit the maximum efficiency of physical movement and mental will of the unaided human animal.

The normal pace of an ordinary adult, walking without haste or loitering on a level surface, is 4 miles an hour; or 100 yards in $51\frac{1}{2}$ seconds. The record 100 yards running pace is $9\frac{3}{8}$ seconds; and the 4 miles running record is 19 minutes $8\frac{7}{10}$ seconds. In other words, the absolute maximum of short-distance running is $5\frac{1}{2}$ times the speed of walking; and in long-distance running 3 times the speed of walking.

Over a very long distance—100 miles—the normal walking time would be 25 hours. The running record for the same distance is 13 hours, 26 minutes, 30 seconds. The absolute

maximum has, therefore, dropped, between 100 yards and 100 miles, from 5.50 to 1.8.

It may be taken that if a man could run 100 miles at the same speed as 100 yards he would, but in fact he cannot do so. The limit here is purely physical, not mental, for it is as easy to think of 100 miles as 100 yards ; and the records, therefore, permit us to test the diminishing efficiency of the bodily machine.

Distance.	Time.	Fall in efficiency.
100 yards	9 $\frac{3}{8}$ secs.	maximum
120 "	11 $\frac{1}{4}$ "	"
150 "	14 $\frac{1}{2}$ "	"
200 "	19 "	fractional
440 "	47 "	13%
500 "	57 $\frac{3}{5}$ "	19%
1 mile	4 m. 10 $\frac{3}{5}$ "	34%
2 "	9 m. 9 $\frac{3}{5}$ "	40%
3 "	14 m. 11 $\frac{1}{2}$ "	42%
4 "	19 m. 8 $\frac{7}{10}$ "	43%
5 "	24 m. 6 $\frac{1}{2}$ "	44%
10 "	50 m. 40 $\frac{3}{5}$ "	55%
15 "	1 h. 20 m. 4 $\frac{3}{5}$ "	rise to 50%
20 "	1 h. 49 m. 29 "	" "
25 "	2 h. 22 m. 20 "	fall of 52%
30 "	3 h. 17 m. 36 "	" 59%
40 "	4 h. 46 m. 54 "	" 62%
50 "	5 h. 55 m. 4 "	" 62%
100 "	13 h. 26 m. 30 "	" 66%

These records indicate that the human male¹ can run at a maximum efficiency of 5 $\frac{1}{2}$ times the normal walking pace up to about 200 yards ; the modern sprint being probably the lineal descendant through the ages of the primitive limit of hunting or being hunted on foot. After that the fall in speed is very rapid, and by the time the mile is reached a third of the maximum efficiency is lost—which means in practice that the runner no longer goes "all out."

¹ A woman's running speed is 79 per cent. that of a man ; swimming, 85 per cent. But fewer women enter for athletic contests than men, the training is probably less drastic, and the records do not necessarily represent the physiological (and perhaps psychological) difference between the sexes with precision.

From 1 to 5 miles the fall is steady but very slow ; from 5 to 10 much more rapid—which means that ten miles is the limit of the medium long distance runner, as 200 yards is of the sprinter.

A slower, more powerful, but more enduring type now enters the lists ; it is hopelessly outclassed in the sprint, makes a fair show in the 5 mile, and only begins to forge ahead when the medium distance man falls exhausted. But the maximum efficiency rises at 15 miles, and keeps steady until 20, only falling very slowly thereafter, and actually losing a smaller proportional percentage of pace in the tremendous test of the second 50 miles than the sprinter had lost in an additional 500 yards.

Difference between Average and Exceptional Ability.—The difference between winner and runner-up in a hotly contested race may be small—perhaps not more than a foot in a mile. But it is decisive. It is the same in other matters : the difference between leader and followers, between the type that gives and the type that takes orders, between the successful man and those who merely carry on creditably, is often small. But it is decisive.

It is not true, of course, that men are born equal ; there are differences of potential capacity as well as social station at birth, and the latter are to a great extent a result of the former. But initial differences of physical and probably mental capacity, between one individual and another born at the same time and in the same country appear not be very great. A few are exceptionally gifted, a few sub-normal ; but the range of intelligence above the ordinary man is much the same as the range below him. And the potential physical and mental ability of a race is a fairly constant factor, the mass seldom diverging very much above or below the normal line.

Initial difference of capacity or rank may determine the result of the race of life almost before it is started ; the handicap of ancestry or genius may make any field a walk-over. But this on the whole is rare ; the ordinary man competes only with ordinary men in his own class. The

decisive difference between human beings is generally not so much in gross capacity as in the power of concentration, and the ability to apply that capacity to one single end ; in other words, it is not so much the possession of power, as the use to which that power is put. Other things being more or less equal, the man who knows exactly where he wants to go, and disregards rival interests, wins in the end.

The specialist wins, but he wins at a price ; he can out-distance all competition in one particular direction, but he is probably rather below the average in other things. The Derby winner will hardly be so good as an ordinary good horse for all-round country work.

We can breed animals for speed or flesh, for meat or wool ; and these are to a great extent mutually exclusive qualities. It is much the same with human beings—a man may become an athlete or a scholar, a mystic or a millionaire, but not both. These facts suggest that while we may, to some extent, direct the living unit as we please, we cannot readily increase its total capacity.

In all biology function determines structure, and both function and structure represent the dominant activity or idea of the species—the achieved physical thought for which it stands. Man is no exception, and although the dominant idea of man—to conquer and subdue the collateral and inferior forms of life—has been achieved by mental rather than physical power, he is the supreme example of the successful predatory type.¹

But in this at least man is an exception, that our dominant idea has been so thoroughly achieved that dominance is now instinctive. We are free to apply our surplus energy to other ends, but we have no longer any one end to which to apply it. We direct our energy no longer to one main purpose, but to many different and often contradictory purposes.

The achievement has left man with a certain amount of

¹ Mercy is the luxury of the strong, and we can now afford to be pacifists because we have long been successful imperialists. If ever the dominance of man were challenged by another species, the virtue of humanitarianism would be quickly restricted.

surplus energy, which he can use as he will ; and since he has stabilised himself on this superior level, use and repetition have discovered more economical methods. We perform our tricks, as it were, more easily, and with less expenditure of effort. This surplus is our freedom.

But every mechanism has its point of maximum efficiency beyond which it cannot go. The locomotive with a certain size wheel has a certain maximum pace, the athlete a certain maximum speed ; and since we cannot readily increase the total power of the organism, the more we train it to one end the less efficient it will be for another.

Excellence in running, for example, is a combination of initial aptitude with steady training. The same is true of leadership in the arts and sciences, and probably all other pursuits. These things are insusceptible of exact measurement, because in such matters we think naturally (and rightly) in terms of quality rather than quantity, and value one perfect line by Shakespeare more than a whole epic by Southey. But in the previous chapter we saw reason to suspect that quality and quantity are not entirely independent factors in consciousness ; and both the perfect line and the pedestrian epic are, after all, products of the human brain. It seems, therefore, logical to suppose that the greatest achievements in intellectual fields bear much the same relation to ordinary everyday performance that the champion runner does to the ordinary pedestrian.

In that event we may regard the great intellectual leaders of the world as possessing from three to six times the mental competence of the ordinary man at the particular matter to which they apply themselves. The comparison seems not unreasonable, and we shall bear it in mind for our analysis of literary and religious genius in subsequent chapters.

Amount of Individual Freewill.—Another series of calculations, which bears more directly on the amount of individual freewill, is more humbling. If freedom is surplus energy, action is the expenditure of that surplus ; and the limits of possible action, and therefore of personal freedom, are sharply defined.

A man can run ten miles an hour for a few hours before he drops exhausted ; which represents the local value of his freedom in terms of speed. Now the earth moves through space at rather more than 18 miles a second. The ratio of man's free motion to his compulsory motion is therefore, on a maximum calculation, not more than 1 to 6,500.

He cannot, however, keep it up indefinitely ; there are limits of stress which cannot be passed. We all get tired ; the athlete goes stale. We must have rest and sleep ; and we spend roughly half our life in repairing and getting ready for the strain of living the other half. On the rather high assumption that the average man walks ten miles a day, this means that the ratio of our free and conscious motion to our compulsory and unconscious motion is about 1 in 150,000.

Further, if a man walked twenty miles a day he would have little energy left for other things ; and it would not be easy for a man to walk twenty miles a day year in, year out. But on the assumption that he walked twenty miles a day for seventy years he would cover 510,000 miles in a lifetime. The figure as it stands is obviously excessive, and no man actually devotes all his energy to mere purposeless walking ; but we shall probably not be far wrong in saying that half a million miles represents the life-energy of a man in terms of walking.

Now the physical universe, according to Jeans, measures from one to four million light-years. The former calculation is admittedly too small, but we will take it as a minimum. Now one million light-years means a diameter of 5,865,696,000,000,000 miles ; and a circumference of 18,435,044,571,000,000,000 miles. It is clear then that a man's total life-effort as compared with the spatial bulk of the universe is not more than 1 to 36,870,089,142,000 ; the latter being the number of lives of 70 years length that he would need to make the physical circuit of the universe, on a minimal reckoning which our telescopes already exceed, and may possibly quadruple. Such are the limits of human personality and power in relation to the universe.

If the basis of the above calculations is correct, these disconcerting figures probably represent the average amount of surplus individual energy and personal freedom in an impersonal determinist universe; and they may suggest—they do not necessarily prove—that the course of evolution is pre-ordained, and beyond our control.

We have now to see within what limits that little measure of freedom can be applied.

SECTION 2.—THE LIFE LINE OF LEAST RESISTANCE.

The manifest distinction between conscious life and matter may be stated in a sentence. Lifeless matter always follows the line of least resistance, but the conscious living organism often takes the line of greater resistance.

Water, for example, flows and pebbles roll downhill, and the steeper the gradient the faster they go. Men, however, act differently. Almost everybody insensibly quickens pace when he starts to walk downhill, which indicates that our natural tendency is to follow the line of least resistance, like the earth and water of which we are so largely made. But if the gradient becomes steeper we put the brake on and, unlike the pebble, go slower instead of faster. At last the gradient becomes as steep as a precipice; the pebble falls from top to bottom, but we can either stand still or jump. It is therefore clear that we are not entirely composed of earth and water; some extrinsic element gives us the capacity of choice and judgment. That extrinsic element is not necessarily life, for an uprooted tree falls as readily as a stone; the thing that gives us pause is consciousness.

Uphill the difference is still more clearly marked. Pebble, water, and uprooted trees stop at the bottom of the hill; horse, dog, and man go up. At first rather more quickly than on the level, showing that they are putting some reserves of energy into the business; then more and more slowly, as the gradient begins to tell, until we sweat and groan and tongues loll out. Towards the top, as the stock of surplus energy diminishes, we begin to go zig-zag; it expends more power in the long run, but spreads it over

a longer time, and thus spends it out of current income rather than capital.

That is choice in most elementary form. But the choice of alternatives is confined to conscious life, because only conscious life is aware of these alternatives, and equipped with the surplus energy that enables it to follow the path of greater resistance. Indeed, the practical conduct of life is nothing but a choice of alternatives between the lines of least and greater resistance.

Now choice is itself conditioned both by the limit in capacity of the organism that chooses, and by the fact that every selection implies the concurrent rejection of an alternative. Freedom is the rare exception in a determinist world, and once choice is made, that particular selection must bear its consequence for ever.¹ But the very fact that we choose the path of greater resistance involves an expenditure of our small stock of surplus energy, and consequently reduces our potential freedom.²

¹ Every selection accentuates character in one direction, every rejection limits it in another. And thus even in matters of seemingly trivial importance every selection or rejection slightly modifies the totality of the individual; and the cumulative effect of trivialities constantly repeated is decisive. The animal that prefers flesh to grass becomes a very different beast from one that prefers grass to flesh; the animal that continues to hunt by smell has a more limited range and intelligence than one that uses the superior instruments of sight and hearing.

It is precisely the same with human experience. Quite early in life we begin to show preferences and, within childish limits, to select experience; one kind of food, game, companion, or book. In all these things admittedly, and throughout life, choice is limited to what actually presents itself—one cannot make friends with a man one does not know, or marry a woman one has never heard of—but the life of the poorest is never so poor that there is not some variety of personal choice.

But here, too, in the familiar human field, as well as that of the lower animals, every selection implies its concurrent rejection. The child who prefers its book to play, the youth who makes the economic decision between the adventurous and the safe career, the mystic who chooses the contemplative call rather than the domestic hearth—with all alike the positive selection is accompanied by the negative rejection. On these individual preferences and selections personal character is built, and the accumulated sum of these preferences and selections through the ages makes and from time to time modifies racial character.

² In a sense therefore, the seeming paradox may be true that the man who has most freedom is he who uses it the least; the Hamlet type, which contemplates all action but never acts, which debates even self-destruction but never commits suicide, may stand as the supreme example of freewill. But this is only partly true, for the living organism may replenish its lost reserves and grow by what it feeds upon.

The reason is clear. Of any two alternatives, such as going downhill or up, staying in bed or going to work, one offers the path of less, the other of greater resistance. We may follow the line of gravitation or least resistance and conserve our energy; or of freedom and greater resistance and spend our energy. We cannot do both.

These considerations make clear both the origin and extent of our freedom. The living organism has to maintain itself against the external world as a first charge on its resources. Now the energy we spend on the routine business of going on living is not, in any ordinary sense of the word, free; it is hypothecated to a purpose without which we cannot continue to exist. And if our expenditure of energy is exactly the same as our income, and that expenditure is irreducible, there can be no effective freedom; the will merely operates as an automatic regulator. But anything over and above the amount of that expenditure is free; no longer income that has to be spent, but income that can either be spent as we will, or saved and turned into capital. The balance of unspent energy is the source of our freewill.

We all normally absorb and accumulate rather more energy than we immediately require, and so build up our little temporary capital of life out of income. If there were not this surplus, we should be unable to make exceptional efforts in times of crisis, the runner would not get his second wind, there would be no forced marches, no last desperate effort to turn defeat into victory, neither heroism nor "divine discontent"—which is merely the consciousness that we are not putting our surplus energy to the best possible use, at least to the use that we most desire.¹

¹ Restlessness is due to our stock of available energy being in excess of our ideas; we have no appropriate outlet for the power we have accumulated. A healthy child is more apt to "get into mischief" than a sickly one, because it has more surplus energy.

Irritation and bad temper, on the other hand, generally indicate deficiency of individual energy; they are confessions of conscious impotence. Tears in women and children probably spring from the same cause—overwrought emotion conscious of impotence; and the proverbial relief of "a good cry" is apparently due to the fact that it lowers the nervous tension. The harridan who vents superfluous energy in abuse, seldom cries. It is precisely for the same reason that a man swears when things go wrong.

A slight alteration of environment, or some sudden stimulus of hope or fear will compel the organism to draw on this marginal reserve ; and the desire or threat to its existence may in time cause it to absorb more power to compensate for the increased expenditure—an additional turn of speed or increase of intelligence, for example, which gives it an advantage over a whole set of adversaries in attack and defence. If it can stabilise itself on this higher level, so that capacity increases but expenditure of energy remains the same, the organism progresses. In point of fact, expenditure will almost certainly increase as well as income, but if there remains a profit on balance, and an increased surplus of energy, the organism has still gone up in the scale of life. Progress therefore, comes when the capture of more energy enables the organism to maintain a higher standard.¹

This surplus energy is our freedom ; within our limits we can use it as we will. There is no freewill in nature. But this individual reserve of power—this spare capital accumulated and dissipated in each lifetime, this fluctuating balance of income over expenditure at any given moment—becomes (at least may become) free when it enters consciousness, and perceives the existence of choice.

There is no question here, as some have supposed, of any breach in the laws of cause and effect. The origin of freedom is the existence of external variety and objective choice, but its subjective use depends on the fact that we absorb more energy than we require at the moment for the actual purpose of going on living. To the extent of that surplus—no less and no more—we are free. It is a precise and definite effect of a precise and definite cause.

¹ This increase of power is the rare exception rather than the rule, and more likely to follow a slight alteration of conditions for the worse rather than the better. It does not follow as of course from removal to easier conditions, which merely stimulates rapid breeding along the same level of capacity ; the English rabbit in Australia and the English sparrow in America are not more speedy or intelligent than collaterals at home. Increase of numbers may solve the problem of continuity for the species, but solves it on the same level.

On the other hand, too great an alteration of conditions for the worse may compel a sluggish way of life, or even compel the further step downwards to parasitism, that last refuge of the beaten organism.

This surplus of available free energy varies, not merely between one person and another, but in the same person at different times. The child shows it in play, mischief, and fits and starts of interest in outside things; cramped at first, it seems suddenly to become boundless at adolescence when the world is all before us, and to conquer or be conquered depends upon our will. Follows now the period of high ambitions and great decisions, when the major purpose of life is formed; individual freedom normally reaches its apex at marriage, the decisive choice of life, and thereafter slowly declines as the consequences of marriage assert themselves.

Freedom is obviously greater in youth than old age, when the available surplus of life and liberty are both declining¹ but the excess of current income over expenditure is probably never very large, or fewer men would follow the path of least resistance.² It is because our stock of surplus energy and therefore our freewill is limited that we have to sacrifice secondary desires in order to succeed in one primary aim.

One path or the other must be taken, and here again choice confronts us as the basis of character. Manners do not so much make as reveal the man; it is the emergence of one dominant desire among a dozen lesser desires that makes and fixes character. All purpose implies selection: this is the rock on which personality is built or split.

With many, indeed, the mere business and toil of existence absorbs all their available energy. Those who live close to the margin where income and expenditure balance have little liberty; and however we attempt to disguise it, slavery, political, social or economic, is the inevitable lot of all whose whole energy is spent on merely keeping going.

¹ A child that goes upstairs two steps at a time is sufficient proof. It is for this reason that prodigality, which springs from conscious excess of power, is the failing of the young. Avarice, which indicates the fear of declining power, is the vice of the old.

² Our natural instinct is to spend energy as we get it. Give a child five shillings, and it runs off to buy toys and sweets. An unexpected legacy to grown man or woman means a motor or a new frock—toys and sweets again.

Others, and these perhaps the majority, waste and fritter away their stock of surplus energy through lack of conscious or continuous purpose ; few men make the most of themselves or their chances. Only a few possess, or are possessed by, an idea which dominates their life ; but when this happens, waste of energy is eliminated, and a career is ordered with something of the certainty, the precision, the exactness and ruthlessness of a machine. These are the potential leaders of the world, and they, like the weak, have no freedom because they have no excess of energy. But the weak are slaves because they have no surplus ; the strong are slaves because they have bartered their surplus for achievement.

The question then arises : Seeing that within these limits men are free, how far do they follow the path of greater resistance ?

The answer can only be given by observation of men in the mass, in matters on which we may presume that the great majority are free to exercise their will. I, therefore, made some attempt to ascertain from the ordinary behaviour of the actual, not the metaphorical, man in the street what is the amount of available freedom in bulk. If the illustrations seem rather trivial, the defence must be that it is only by observation of trivial matters that the average use of freedom can be calculated.

The Normal Law of Traffic.—The origin and measure of all traffic is psychological. It is only because men desire a thing that they go after it, and only when the desire is so great that they go after it in numbers year after year that a trade route establishes itself. All roads led to Rome because all men desired to get there.

A.—Now pedestrian traffic practically always follows the line of least resistance, as may be seen from the distribution of the shopping quarter in any city. In a little town where the one shopping street is in the middle of the town, traffic on the two sides of the street will be approximately equal ; unless the wealthy quarter is on one side of the town, in which case the better shops will always be concentrated on

that side of the street. But if two-thirds of the town grows up on one side of the shopping street, and only one-third on the other, then the side nearer the larger residential quarter will probably contain two-thirds of the shops, while the other side has many vacant spaces.

In London, where there are hardly any vacant spaces, the same law holds good. Northumberland Avenue is not a shopping thoroughfare, but 60 per cent. of normal foot traffic is on the east side, because more people want to get to or from the shops in the Strand than to the offices in Whitehall; I have tested this many times at different hours in the day, and the ratio is always approximately 60 to 40.

In the Strand itself there is always more traffic on the south than the north side, and therefore better shops and higher rents;¹ but in Oxford Street, which runs parallel to it, the position is reversed—the crowd is here on the north. The reason is simple. More traffic comes into the Strand across the southern bridges than from the north, but more traffic comes into Oxford Street from the north.

It is a truism that individual man is incalculable, but average man certain, or nearly certain. The fact indicates both the existence and the limit of freewill. Within the region of available choice, the individual pedestrian follows any route he please, but the mass always takes the shortest way out and the quickest way home.²

This is the rough commonsense way of conserving our energy. But the fact that the individual tends to expend his energy as it comes, whereas the mass conserve it by following the line of least resistance, supports the assumption that we live fairly closely up to the limit of our physical and

¹ It is significant that there has been a large vacant space for years on the north side of the Strand.

² In the young the desire to save time is stronger than the desire to save space; in the middle-aged and old the position is reversed. Hence the young man jumps from a train before it stops, and saves ten seconds; the old man waits, and saves ten yards.

Those who are now old were once young; and it is significant that when the number of London street accidents is compared with the number of omnibus and tramway journeys over a period of nearly twenty years of changing traffic conditions, the ratio of increase between the two is exact and constant.—*Daily News*, 18th April, 1925.

mental capacity. We may not put our energy to the best use, but at any rate we use it.

Freedom, then, as judged from pedestrian traffic, is individual and local. It is greatest in the unit, and diminishes steadily as numbers increase. Two people have less freedom than one, a hundred less than two, a million less than a hundred.

This law of diminishing freedom with increasing mass becomes of importance in discussing the larger political and ethical aspects of freedom; for if generally true it must follow that there is less freedom in a nation than an individual. Perhaps no nation can be free; only the individuals within it.¹

B.—It remains to enquire whether the line of least resistance is the same in human affairs as in general traffic.

The most economical railway is the level track. The purely mechanical effect of an upward or downward gradient in reducing or accelerating speed is easily ascertained. An express locomotive drew a heavy passenger train along a straight mile at 60 miles an hour on the level. A falling gradient of 1 in 80 increased the speed, over a measured quarter-mile, to 75 miles an hour. A similar rising gradient reduced speed, over a measured quarter-mile, to 2 min. 40 sec., or less than 25 miles an hour. A falling gradient, therefore, increased speed by 25 per cent., a similar rising gradient reduced it by about 60 per cent.

Every increase of gradient reduces speed more and more sharply for uphill work, but does not proportionately increase speed for downhill work. And since traffic is approximately equal out and home, it follows that the level track is both the quickest and the most economical.

¹ Even Rousseau, while claiming that man is born free, admits that he is "everywhere in chains." This, however is merely a political version of the fall of man.

Christianity supports the individual independence of man; it has been held that the individual soul is predestined by God, but never, I think, by its human ancestry. In this it differs from Judaism, whose doctrine of the sins of the fathers necessarily limits individual freedom. Buddhism, with its theory of reincarnation, also limits the freedom (not perhaps the responsibility) of the individual.

Man, being a mechanism arranged on the joint, ball and socket principle instead of the wheel, is less adapted for speed, but better adapted for climbing. A gradient of 1 in 3 is about the human limit for short-distance walking ; 1 in 2 is possible with a stick, which converts a biped into a triped ; and steeper ascents can be climbed. A skilful climber, provided he can get hand and foothold, can climb almost perpendicularly ; it is, however, easier to go up than down, owing to the eyes being in the head instead of the feet. But for man, as for the machine, the level track and neither uphill nor down, is normally the path of least resistance.

This, then, is the working rule of life as of traffic ; that on the whole men keep the level track and the shorter route unless some definite reason impels them to expend more energy on an alternative and more difficult course. We only abandon the level line of least resistance for the upward path of greater effort if the latter promises additional pleasure or advantage.¹ Hence personal ambition and high endeavour ; hence, too, self-denial and self-sacrifice—which are merely other words for the higher ascent of the individual. But in thought, as in action, most men, like the rest of the physico-chemical world, follow the line of least resistance.² Great achievement is for the few ; continuity on the level track the portion of the many.

¹ Sometimes the physical parallel is exact. An early report on Sierra Leone records that the negro colonists who clung to the low-lying coast, " preferred eating in a miserable way to climbing the hill where they might enrich themselves by exertion."

At first sight the most astonishing puzzle of history is the lack of inventive imagination when its rewards are so conspicuous. It seems almost incredible, for example, that the Romans, who made the best roads in the old world, should not have devised some method of mechanical transport ; were it not that nations which suffer from plague and pestilence to-day show no particular interest in sanitation, and that it is not the people who are threatened with famine who initiate chemical researches into the soil. Perhaps nothing better illustrates the universal tendency to sheer repetition which is enforced by the dead hand of custom than the fact that men have lived and died for centuries, and still live and die, under these conditions, without any attempt to change them.

² Thought may or may not be the highest form of action : at any rate, it is the rarest. But since thought is essentially mental action, it is subject to the same laws as other actions. A novel thought, like any other novel action, is difficult and slow of execution ; it is an exploration of new

Continuity the Normal Law of Politics.—History emphatically endorses this view. The individual can, if he so chooses, break with a great deal of his past ; a nation cannot so turn back on itself.¹ After revolution comes reaction. The Roman Empire collapsed, but the Roman Church rose on the ruins—a spiritual in place of a political Imperialism. Cromwell abolished the English monarchy and the House of Lords ; within a decade Cromwell was gone, and both institutions were restored. France abolished the monarchy, but there were two more monarchies and two more republics before the republican idea prevailed. Russia broke the Czar, but autocracy and corruption continued. It is true, as Burke said, that one cannot indict a nation. It is equally true that one cannot reform a nation.

But when institutions decay through change of circumstance or the passing of the idea for which they stood, nothing can revive them. The Roman Senate remained for centuries a shadow under the Empire, but even when the opportunity presented itself, it could not be restored to life. In the same way the Roman State religion decayed ; it is probable that Constantine only recognised Christianity when it had practically conquered—the failure of Julian's

territory in which the individual walks warily, for fear of pitfalls. But a novel thought, like any other novel action, that yields successful results, will be repeated. The mental road once made is safe, and soon recognisable as a familiar and well-lighted highway ; and the same thought being often repeated eventually becomes as instinctive and as much part of ourselves as any regular physical action.

Mental instinct, which is merely petrified experience, takes many forms. A child that has been trained to say its prayers before going to sleep, cannot sleep without saying them. The nurse sleeps through a thunderstorm, but wakes when the baby cries ; habit secures attention to the one, but ignores the other. The regular writer or speaker becomes fluent ; original thought along new lines remains difficult, but expression along the old lines is easy. By long practice the experienced rider sits his horse when asleep ; habit secures his balance.

The discipline of the long-service soldier forms habits that set into personal and regimental instincts which change the original character. The Roman legions and the Janissaries are the stock historical instances ; an amusing example from the British army was recorded by Huxley.

I once read a dreadful story of a Catholic priest who cut the throat of his mistress and then heard her confession as she bled to death in his arms ; an instance of professional instinct.

¹ Unless inspired by some religious idea ; the Arabs, for example, or the Sikhs.

apostacy is tantamount to proof. And it is practically certain that the Reformation triumphed in Germany, as the Inquisition triumphed in Spain, because the mass of the people were with it.

Humanity is a very constant factor because the mass follow the level track of least resistance to local environment.¹ Transport and sanitation apart, the Egyptian peasant is much the same to-day as under Rameses, and the European much the same as in Roman times. History shows conclusively that the mental temperament as well as the physical inheritance of nations breeds true over a long series of generations; hence the tremendous weight of tradition and authority in society, politics, and religion. Mentally as well as physically, humanity changes very slowly; man is fundamentally a conservative animal. Now this conservative habit is necessary to the continuity of society, but it is apt to become intolerant of change merely because it is change; in other words, to become purely instinctive.

In all ordinary circumstances precedent and the custom of the past is decisive; only when environment changes through invasion, conquest, or emigration does the average mental temperament alter. The vast majority of human beings follow closely, both in action and thought, in the footsteps of their parents; the innovator, the revolutionary, and the rebel are the rarest of our kind.² Were it not so, society itself could hardly exist; for society and the State are organised on the tacit assumption that things will continue as they are. And they are so organised because

¹ This seems to be true philology as well as politics. Waddell (*Lhasa*) points out that the more northerly the language in Asia, the greater the proportion of consonants, so that words can be spoken with the mouth closed as nearly as possible. The European languages show precisely similar climatic influences.

² Nearly all political revolutions fail to achieve the whole of their original purpose because the change of political environment does not greatly affect the mental heredity of the mass of individuals composing the State. On the other hand, no revolution can entirely fail of effect, for it necessarily alters the mental environment in some degree. It is true, however, that this may prove so irksome that it ensures political reaction, which is simply a reversion to established continuity.

the assumption is generally true over long periods of time. The tendency of the State is always to stabilise and average ; change and progress only come through the individual.

The mass of mankind, as of all other species, follow the line of continuity, conservatism and conformity, because this is the path of least resistance. Statecraft as a whole therefore follows, and is almost bound to follow, the line of historic continuity along the level track. The individual statesman may, perhaps often does, take the personal line of greater resistance—it is sound strategy, to put it no higher, for the young politician to oppose the popular will—but the most that can be done is to canalise a section of public feeling in the desired direction, where it will follow him as a leader.¹

Now the power of a public leader is owing to the fact that the strength of every recruit can be added, at least for the time that men can be persuaded to follow, to his own. This may well seem to make him an irresistible dictator at the height of his career. But every carter knows that three horses do not pull three times as much weight as one, or six horses twice the weight of three ; there is a loss of efficiency with every horse, and every addition makes the team more difficult to control. It is precisely the same in politics ; the nominal power of the leader increases but his control diminishes as followers multiply. He can dictate to a minority, but the majority dictates to him.

For that reason the powers even of autocratic governments are in the long run very limited. They may found themselves upon or against the popular will, but they are more subject to decay from within, or violent revolution (or

¹ A chance crowd will follow the leader who has spellbound it by his eloquence. It has neither cohesion or unity, and takes the line of least resistance. But it will cut and run before disciplined opposition—the spell is broken, and individualism reasserts itself ; but this is once more the line of least resistance. Form the same crowd into a unit, train and discipline it as a regiment, and it will no longer break when attacked ; the idea of the safety of the regiment has displaced the idea of the safety of the individual. But again, and on a different level, it follows the line of least resistance. Destroy more than a certain proportion of the regiment, and once more the spell of mental unity is broken ; individualism reasserts itself, and it will cut and run again.

reaction) from without, than popular constitutions. In the end the pace of the crowd is the pace of the politician, and the pace of the crowd is always the level track of least resistance.

Peace seems so obviously the line of least resistance that the persistence of war suggests a flaw in the argument. But in fact it is not so. Every man is peaceful so long as he gets his own way; strife only occurs when interests conflict—in other words, when two men or two nations compete for the place which only one can occupy. But once an idea or a policy gains momentum, it is as difficult to stop as it was to start; with the result that when policies or States come into opposition, war rather than peace may be the line of least resistance.

Most men and probably most nations are inclined on the whole to place "safety first" as the working rule of life and politics. But this is by no means a final argument against war. Indeed, the decisive fact is hardly ever the consideration that war is dangerous. What is really decisive is the fact that when conflicting interests become acute a situation may arise in which the submission of one party to the other involves a loss of power and therefore of freedom in itself intolerable. Peace can always be had by submission, but the risk of death may be preferable to the certainty of slavery.

Difference between Politics and Religion.—Politics therefore nearly always follows the line of continuity or least resistance; religion, at least a new religion, is the exact opposite. Christianity under Nero and the first century under Islam are cases in point. The reason is simple. Politics deals with the normal perceptions of the mass, which is bound; religion with the abnormal perceptions of the individual, who is free. Politics deals in old ideas—the problems remain the same, only the individuals and circumstances change—whereas religion, at least in its pioneer stage, deals in new ideas, which may disrupt current political continuity.

Ironically enough at first sight, science is in the same position as religion in this matter. Copernicus and Galileo,

Lister and Pasteur were all assailed because they introduced new ideas. But science, like religion seeks absolute and therefore universal truth ; politics is concerned with relative and local truth.

The Double Standard of Ethics.—If these considerations are true, they must ultimately affect ethics, for morality is the very citadel of freewill. But the study of human conduct raises very difficult considerations, since morals are both social and individual, and therefore within the ambit of both politics and religion. It is because the individual is free, whereas the mass is bound, that the problem of ethics is confused by a double standard.

Concrete or practical ethics represents the law of the mass, abstract or ideal ethics the rule of the individual. The two must ultimately harmonise, but in current habit the former follows the low road along the traditional sea-level of ancestral and average contemporary morality ; the latter looks down from the heights.¹

Concrete ethics differ from place to place. Local morality grows up from local practice—an amalgam of right and wrong, with certain necessary virtues and permitted vices, a convenient and conventional standard of ancestral morality that represents the level line of tribal continuity and social conformity along the path of least resistance. The weaker fall below that level, showing themselves deficient in necessary virtues or excessive in tolerated (or forbidden) vices ; the stronger rise above it, and are either applauded or punished (possibly both in succession) for their daring.

Concrete ethics is, therefore, always pragmatist. That which experience shows to profit the individual is right, unless it harms the family ; that which profits the family is right, unless it harms the tribe. But that which profits the tribe is always right, even if it hurts the individual or family.

In these matters, as in other things, society builds up

¹ The contrast between concrete and abstract ethics may be quite clearly shown. If it is true that the wicked flourish, it can hardly be true that the wages of sin is death. In any event, death existed long before man, and the legendary fall.

its system from its surroundings. The ordinary man's philosophy is determined by his position, not his position by his philosophy. His conduct is conditioned by his circumstances, not his circumstances by his conduct; and his religion, so far as it is anything more than a cloak or convention, is conditioned by his conduct, not his conduct by his religion.¹

This current moral code works reasonably well in all ordinary circumstances. But there is no disguising the fact that it is, and must always be, a thing of shreds and patches, a working compromise and makeshift in which the skirt of to-day covers the torn petticoat of yesterday. Our ethical garments cover us more or less adequately, but they only fit because our moral stature has not grown.

Most men with a working knowledge of history will admit the mechanical progress of the last two thousand years; I doubt if many would affirm the existence of moral progress. If men had changed very much we should not read the classical authors with such pleasure; but the problems which vexed Æschylus and Sophocles are still unsolved, there is still laughter in the comedies of Aristophanes and the satires of Juvenal, and the politics and ethics of the Greek and Roman philosophers are still largely contemporary. In morals at least the more the thing changes the more it is the same thing.

This concrete and practical standard of ethics is, therefore, not ultimately sufficient; its measure is safety and continuity, not progress. It is based on the proved expediency of the level moral road, the traditional track of conformity and least resistance for the mass; but it ignores the possibility of climbing the heights—or else suggests (what is not true) that those who climb are a law unto themselves. In

¹ This fact distresses Bishop Gore, who is perplexed by the discovery that atheists may behave like Christians, and Christians like atheists. (He means that atheists are sometimes gentlemen, and Christians sometimes cads). But morality is independent of creed, as Dante admitted when he put a pope in hell and a heathen emperor in heaven.

The truth is that religious belief seldom goes deep enough to affect the springs of conduct. If it did, Christians would not fight, or Mohammedans drink.

effect it worships, without recognising that it does worship, public opinion—a plastic rubber god which is an impressive tyrant from below but a ridiculous impostor from above. Its standard, therefore, alters from place to place; the local morality of China is not that of Peru. And this inadequacy leads men to seek an absolute moral law, applicable at all times and in all places; but the quest for abstract ethics raises very grave issues.

An absolute moral law seems inevitably to rest upon the will of God. But if that is so, it must be the will of God that the world is as it is, since the world as it is cannot be other than the will of God. The world as it is, however, is neither wholly good nor wholly evil. It, is therefore, clear that the will of God, if such exists, is not entirely for good as we know it, and it seems incredible that it can be entirely for evil. If an absolute moral law exists we have no option but to obey it, but it is manifestly not bound by these local dimensions of good and evil.¹

Are we then automata? The mind revolts from the idea; concrete and abstract ethics unite with common sense in recognising the reality of freedom. However limited our liberty, it is sufficient for moral responsibility. It is because the individual is free that there is good and evil, the right and left of life, which melt insensibly into one another according to the position in which we stand. But this is not the absolute moral law we must obey.

There is one absolute and universal ethical law, and none other—justice. Were there no justice God would not be a rational God or the world a rational world; but in fact there is nothing else but justice for us. As we sow, we reap. Every act, every thought is weighed in the invisible but universal scales of justice; the day of judgment is not in some remote future, but here and now, and none can escape it. There is one ultimate moral truth, and none other anywhere—the certainty of justice.

¹ The theories that evil does not really exist, and that God permits evil that good may result, need not be seriously discussed in this connection. Perhaps they need no longer be seriously discussed at all.

The past is determined, the future conditioned ; only the present is free. The cards in the game of life are fixed and limited. We have no choice in the shuffle, the cut, the deal : this is the ancestry that we call fate. But we can call as we please, and lead what suit we will : this is freedom. Those who play low stand to lose little ; those who aim high stand to gain much. But as we play we pay or profit : this is justice.

But religion has confused the issue between abstract and concrete ethics, because religion believes in progress upwards, and has therefore a different standard of values, whereas society follows the level track. Both religion and poetry adopt the symbolism of the physical world—*Facilis descensus Averni* ; the mount of Purgatory ; the steep ascent to Heaven. But both adopt it with a difference. Christian's load of sin in Bunyan's allegory gets lighter as he climbs the heights, and in the sad beauty of Dante's Purgatory, as in the scoffing French proverb, it is only the first step that counts—the poet holds that this first step is the most difficult, but that perseverance in repentance eventually makes it a easy for the soul to rise as for a ship to go down with the tide.

Normal experience is rightly sceptical of the soundness of this scheme. However true these things may be in another world, they are emphatically not true of this. In the moral as in the physical world of our experience the steeper the gradient the more difficult the path ; the more remote or uncertain the pleasure or profit to be gained the fewer that pursue it.

It is true, of course, that vice is weakness or slavery, and virtue strength and freedom ; current speech here endorses religious theory with its image of an upright man, and few will dissent from the beautiful phrase of the liturgy that those who are " tied and bound by the chain of their sins " have no health in them. But it is certainly not true that the heart of man is desperately wicked, that as a matter of course he prefers evil to good, and the easy descent to hell to the steep ascent to heaven. Nor is the assumption true that men desire to fall ; they do not. They desire to

remain on the level track of ancestral custom and least resistance.

The truth is rather different. When the ordinary man goes downhill in the physical world his natural tendency at first is to go faster, but he soon puts the brake on. It is the same in the moral world ; he becomes conscious of the danger and pulls himself in. Men are often weak, but seldom vicious ; it is not in fact particularly easy for the average decent person to "descend into hell." The fact that only a small minority wreck their lives shows that sin is not the true line of least resistance in morals.

The ordinary rule of conduct is continuity on the ancestral track ; the level line is the safe line for life as for traffic. Progress is unlikely unless circumstances change, but so also is degeneration. It is true that only those who are blind to the biological record can deny the existence of progress ; we saw above that man climbs more easily than he descends. But progress is not the general rule ; it is the individual exception, which the mass may or may not eventually follow.

Continuity and repetition, not degeneration, are therefore the ethical as well as biological line of least resistance ; in standards of conduct most men follow roughly the ancestral or parental code, which tradition, custom, and training make the line of least resistance for them. We honour our fathers by imitating them ; if this is sin, then are we all sinners.

It is here that the absolute standard of ethics, which looks down on man from the heights, shatters itself upon the facts of life. One prophet after another denounces the stiff-necked generation that refuses to repent ; the crowd listens for a moment, shrugs its shoulders and continues in the way of its fathers. And one religion after another which seems built on the solid rock of certainty, crumbles before this ceaseless ebb and flow of human indifference. Its ultimate values may conceivably be right, but its immediate psychology is demonstrably wrong. Man breeds towards the normal type ; there are as few great sinners as great saints.

Men do not want to rise or fall ; the great majority want to remain on the level track which experience shows them is the line of least resistance. This is practically the constant sea-level of ethics, from which man may climb to the very summit of achievement if he has sufficient resolution.

The individual may do so, but the mass never. The difficulty is, of course, that we have not sufficient resolution ; these matters are in fact akin to the problem of physical fatigue when mounting a gradient. Concentration on any one course is exhausting, even in the mere matter of going on living ; and this is still more so when our purpose involves either a material or moral ascent—in other words, when it leaves the path of less for greater resistance. We make up our mind to rise, but after a time we fall to nearly the old level ; the will to rise is spent on rising, and the individual must rest from time to time before he begins to climb again. Ascent may stimulate, but it tires and isolates. The leader points the way to the heights, but he lives alone.

It is because the mass is bound that it follows the level track of ancestral custom ; it is because the individual is free that he can brave the heights of great endeavour. We cannot reform society but the individual can reform himself ; all progress must come first through the individual. There is no real sacrifice except self-sacrifice, no real discipline except self-discipline, no real restraint except self-restraint. Conquest, like charity, begins at home ; only the man who controls himself can advance.

For this reason religion has always recognised the unique value of continence because it is the supreme act of self-control. Chastity, in Dante's dream, was the highest summit of purgatory, from which paradise was visible ; but the gallant Lancelot was vouchsafed no more than a glimpse of the unseen world, while the Holy Graal was revealed to the pure gaze of Galahad.

But the reason why self-discipline and self-restraint are effective is that they conserve our energy for the ascent above the normal level ; we give up everything else that we may obtain the one thing needful—that is to say, the

one thing we think needful, whether material or spiritual. This is dedication or consecration to an end—a tacit confession of limitation, even of weakness, but in the end a guarantee of strength and achievement.

But to do this we are compelled to choose between the level track of the mass and the upward path of the individual. The great majority remain contentedly on the continuous plain of ancestral tradition. Ambition should be made of sterner stuff, and no doubt it is. But to rise in the world a man must continuously avoid the line of least resistance; for that line can at most ensure simple continuity on the old level.

The moral, like the physical, ascent of the individual is therefore quite definitely dependent on the surplus power of the organism, which alone enables it to take the line of greater resistance; that which has little power has little freedom. It is for this reason we all strive for power, and worship power as a thing admirable in itself; and society respects military glory and the ostentation of wealth, because both are visible symbols of the possession of power.

This admiration is primitive and natural; only later do we learn to discriminate between power and the use to which power is put. But this is a question less of power than of value. Virtue in its original meaning was strength; it now implies not strength so much as the capacity to put our strength to the best use. And experience shows that these values are permanent and real, not imaginary; and the higher the value the more difficult it is to attain.¹

In order to ascend, however, we are again compelled to choose between available alternatives. And in the moral as in the physical world, our ideas are limited by our perceptions; unless we perceive things we have no ideas. Freedom to attain them, it is true, is limited by our strength; unless we have power to advance we cannot advance. But in

¹ It should be noted, however, that the classic virtues—temperance, prudence, etc.—are not of themselves values; they are merely the condition of obtaining value. They are the means of attaining power; but the power attained may be used for good or evil.

the long run progress is limited by the idea of progress ; we advance so far and no farther than our desire.

Thus to some men wealth is the means to an end, to others the end itself ; and of these the former are the wiser and rise higher, because they see something beyond wealth. And to many men life is a means to an end, to others the end itself ; and of these the former are the wiser and rise higher, because they see something beyond life. For the higher the altitude, whether physical or moral, the larger the horizon. It was for this reason that Christ uttered the profound saying, the alpha and omega of mysticism, that only the pure in heart can see God ; for only the pure can rise to that supreme height.

The one certain rule of life is profit, of give and take, but in the long run getting more than we give. And this is true even of the altruist and the saint ; it is merely that their standard of values is different. For they give what they value less—life or time or money—for what they value more, the fulfilment of the ideal that brings them content. In that fulfilment they too find their profit greater than their loss.¹

Now to perceive a thing is to awaken the desire of obtaining it ; to conceive an idea is to formulate the purpose of accomplishing it. Where there is no perception there is no idea, and where there is no idea there is no purpose. But the achievement of purpose in turn implies self-discipline ; it does more than concentrate and conserve our energy—it cuts the channel through which that energy must run.

But the formation and pursuit of purpose, by giving direction to and therefore consuming the individual's surplus energy, inevitably reduces the amount of his freewill ; and the stronger the purpose and the more difficult its accomplishment the less the area of freedom. A man who merely wants to collect postage stamps will probably not spend all his surplus energy in that pursuit, and have strength enough

¹ This view of living at a profit is explicitly recognised by Christianity : " Lay not up treasures on earth, but treasure in heaven." And by Buddhism, with its doctrine of acquiring merit. The difference between the religious and the average standard is one of values.

to reduce his handicap at golf ; but let him form some great and difficult purpose, such as the design of conquering a country or converting a people—which is the same thing at bottom—and the idea will prove so much more potent than the man that it rules his life and absorbs all his energy. His whole life is now devoted to one end, or the fulfilment of one overwhelming idea ; henceforth it is the idea that controls the individual, not the individual the idea.

But when that happens freedom ceases, and determinism resumes its sway ; for there is no longer any surplus energy. Choice has ceased for that particular individual ; and by an odd transfer of motive the human fanatic or automaton thinks he is doing the will of God when he is merely mastered by his own desire and purpose.¹

It is thus the eternal strength of freedom that it is the parent of progress, and its eternal weakness that it is necessarily associated with doubt, hesitation, irresolution. The man who stops to consider at every cross-road may never make a mistake, but he will not get on very fast. Freedom is the father of discovery, but it is always in process of being disowned by its own children, for once discovery is made, certainty claims the ground, and freedom must again shift its camp forward into the unknown. There is therefore always less liberty than authority in the world, and less use of liberty than liberty itself.

Freedom, in fact, is useless until it is used, when it is no longer freedom. It is therefore, like wealth and life itself, ultimately not so much an end as a means to an end. Without purpose it is waste energy ; with purpose it is no longer freedom.

A man is known by his purpose as a tree by its fruits. With the majority life is mainly a repetition and recapitulation of the parental path. A minority seek wealth, which is of all forms of ambition the most easily attained. A few strive for fame, which may involve renunciation of wealth and is

¹ "In Thy Will is our peace," says the immortal line of Dante. But Torquemada found the Will of God and his own peace in burning heretics. When his own time came, he died happily, feeling that he had done his duty.

therefore a steeper ascent and a more difficult path. And a very few attempt the highest quest of all, which may involve the renunciation of both wealth and fame ; the desire of the discoverer for scientific truth or the steadfast pursuit by the mystic of the lonely road that leads to God.

Each has his just reward. The first find safety, the second property, the third applause. The fourth counts these things as nothing ; but he, too, sells a little freedom for a great knowledge.

SECTION 3.—AN ANALYSIS OF LEADERSHIP.

Society is graded into classes according to rank, and social rank is roughly a result of the economic or political power possessed by each section.

The upper class—which may be an aristocracy or plutocracy—is numerically insignificant but individually powerful. The middle class of professional and business men is more numerous but individually less powerful. The lower class of employed men who live near the margin of existence is by far the most numerous and least powerful.

An artificial barrier of manners, the outcome of real differences of environment, separates one class from another, and even causes minor subdivisions within the several classes. The great majority of men remain through life on the parental level, and therefore continue in the class in which they were born ; but ambition and misfortune, which are largely the result of individual character, construct ladders up and down, and therefore no class is completely exclusive.

The upper class, by reason of its numerical smallness and its high scale of living, as well as its leadership in war, tends always to extinguish itself, and is typically recruited from ascendant members of the middle class. The middle class is recruited both from above and below ; while the lower class is recruited both individually and collectively from above.

Class Origin of Distinguished Men.—Among these enquiries into the extent and limits of human faculty, it occurred to

me that it might be a useful, if a tedious, task to ascertain the class of life from which distinguished men were drawn, and the trade or profession which their fathers had followed. On thinking the matter over, I realised the certainty that such an enquiry would involve a good deal of labour, and the possibility that it might yield merely inconclusive results. But a preliminary investigation seemed not unpromising, and in the end I decided that it was at least worth trying whether some sort of path could not be driven through the biographical forest.

The method adopted was very simple. I wrote down first the names of such distinguished men, of any time, place, or occupation, as occurred to me; and then added a list compiled from a manual of literature, and another list made up from a small dictionary of general biography. In each case the name selected was put in its appropriate category—poetry, philosophy, science, history, engineering, art, music, exploration, commerce and so on.

To these were added the Archbishops of Canterbury for the last three centuries, and Lord Chancellors and Speakers for the past hundred and fifty years or so. Most of the Prime Ministers were already included among the statesmen; and I thus had a list of men who had got to the top in Church and State, as well as those who had greatly distinguished themselves in other walks of life. Otherwise very little discrimination was exercised, except that, after some hesitation, I excluded a rather promising collection of criminals and substituted a few living politicians.

These totalled altogether over 600 names, which seemed sufficient for my purpose. The list was rather overweighted with poets, and deficient in engineers, musicians, and business men; but I doubt if this made any real difference to the result. In very few cases did I know the occupation of the parent; and in some which I thought I knew the impression proved wrong—a lesson in the wisdom of the old saw about verifying one's references.

I then looked up the parentage of these distinguished men in the *Dictionary of National Biography*, the *Encyclo-*

pædia Britannica, and the (in this connection at least) more reticent *Who's Who*—a tedious and dusty job. Some of the names dropped out, as the occupation of the father was not given in every case ; but it will be satisfactory to the moralist that only three had to be omitted on account of illegitimacy.¹ Altogether there remained 546 names.

Of these 114 were of upper-class birth, 379 of middle-class birth, and 53 of lower-class birth.

Of the 114 upper-class representatives, 48 were rather definitely aristocratic, and 66 of the squire or country gentleman type. But it was not always possible to be certain which was the more appropriate category, and this subdivision must, therefore, be regarded as a somewhat rough approximation.

Of the 379 men of middle-class birth, 203 came from the professions and arts, 122 from trade, 32 from military or naval stock, and 22 from the farm.

Of the 53 of lower-class birth, 10 were of definitely peasant stock, 7 were sons of weavers, 3 were of servile origin, 2 were sons of sailors, and only one of mining ancestry. The deficiency in these last two categories was surprising ; but the sailors in my middle-class list—admirals, naval captains, and so on—were also deficient in famous sons. The remainder of the lower-class group were sons of artisans or others engaged in humble employment.

If the above list can be taken as typical, it would seem that, speaking generally, of 100 eminent men, 20 will be of gentle birth, 43 sprung from the learned professions or fighting services, 22 of commercial stock, 10 of humble origin, and 4 of farming ancestry.

Most of the men in my list were Englishmen, but there were a considerable number of Frenchmen, a fair sprinkling of Germans, and a few Italians, Spaniards, and Russians. There were no indications that a more extended list from

¹ Despite the proverb, really notable bastards are few. I looked up altogether about a thousand of the greatest names in the world's history ; the only very eminent men of illegitimate birth were Leonardo da Vinci and Erasmus. William the Conqueror might be added, but this enquiry was not concerned with kings.

these countries would have made any perceptible difference to the result ; except that a longer list of soldiers—of whom I had only 20—would slightly have increased the proportion of the upper-class. On the other hand, a larger selection of Americans, particularly the presidents—of whom I had only two, Washington and Lincoln—would have restored the preponderance of the middle-class.

In order to check the trustworthiness of these results another and much shorter list was constructed. I adopted the simple expedient of taking a volume of the *Encyclopædia Britannica* at random, and noting down practically every name, only omitting those whose ancestry was not given or those who were already in the first general list.

A total of 78 rather less eminent men was thus obtained. Of these 19 belonged to the upper-class, 25 to the professional middle-class, 18 to the trading middle-class, 3 were sons of farmers, and 13 of humble birth.

Of 100 eminent men in this second dredging, then, 24 would come from the upper-class, 31 from the professions, 22 from trade, 19 from humble stock, and 4 from farming ancestry.

The correspondence of proportions between the long general list and the short supplementary list was sufficiently, and in some cases, startlingly close. But to make assurance doubly sure, I took out the famous names from another volume of the *Britannica*. In this third list of 74 distinguished men 19 were aristocrats, 24 sons of professional men, 14 of trading stock, and 17 of humble origin.

This supplementary check, then, indicated that of 100 famous men 25 were of aristocratic ancestry, 32 of professional and 19 of commercial stock, while 23 were sprung directly from the people.

Again the correspondence was too close to be accidental. There was clearly some definite law of selection underlying these figures. But the nature of that law remained uncertain pending more detailed analysis of these massed battalions of fame.

It then occurred to me that a further check upon the

figures might be provided by the Papacy—an institution which, at any rate in theory, is open to all men in a profession recruited from all classes, and in which the rule of celibacy necessarily forbids any hereditary succession.¹

But unfortunately a reference to history showed that practice diverged rather sharply from theory. When the institution was obscure the occupant was obscure ; but as the institution grew in power, the Popes were drawn from a higher social rank. Peter was a peasant ; Callistus (218) a slave ; but Gregory the Great (590) a noble. After a time the Popes were either members or puppets of a ruling house ; of a preliminary list of 40, I found that 31 were of noble, 7 of humble birth, one the son of a physician and one of a professor. This check was therefore of no significance ; the infallibility of the Popes does not extend to statistical comparisons.

Comparison between Professions.—The sub-divisions of my list may be of interest. The order in which the professions rank as sires of distinguished sons is :—

Lawyers	..	..	..	..	63
Clergy	..	..	..	..	62
Soldiers	..	..	..	..	26
Artists	..	..	..	..	16
Physicians	..	..	..	..	15
Professors and Schoolmasters				..	14
Musicians	..	..	..	..	7
Bureaucrats	..	..	..	..	7
Sailors	..	..	..	..	5

No other category reaches five, but if we add clerks, accountants, and other office employees to the State officials, then this class numbers 12. All my hundred odd authors, I regret to say, only number three distinguished sons between them ; at which figure, oddly enough, they tie with the publishers and booksellers.

¹ I discovered, however, that Innocent I (402) was the son, and Gregory the Great (590) the grandson of a Pope. This was before the enforcement of the rule of celibacy ; had it not been for that rule, the Papacy might therefore have become hereditary.

The pre-eminence of the lawyers, however, is more apparent than real. There is no doubt that the clergy really top the list, and would have done so but for the celibacy of the Roman priesthood. The high proportion of distinguished sons of the clergy is not confined to England ; it is equally noticeable among the Scots and Germans in my list.

It is impossible to make any precise calculation of the loss which this self-imposed handicap causes France, Italy, and Spain ; but my lists show that the English clergy have 56 distinguished sons to English lawyers 44. As 14 of my distinguished men were sons of Latin lawyers, a simple sum in proportion suggests that a celibate clergy has deprived the Latin countries of about 20 distinguished sons in such a list ; and that had it not been for this factor the clerical total would have been 81 to the lawyers 63—a decisive superiority.

There is a popular impression that the sons of the clergy turn out badly. I investigated this belief with the callous impartiality of the statistician ; but I am bound to admit that crime is the one field of human activity in which the offspring of the Church are very defective. My private museum of rogues and villains is reasonably adequate although not exhaustive ; it contains two or three parsons—including the famous Dr. Dodd, who was hanged for forgery—but the only great scoundrels with whom I can debit the sons of the clergy are Cæsar Borgia, the illegitimate son of a Pope, and Titus Oates, and there is a doubt even about his parentage.¹

I was surprised to find that soldiers, a rather limited class, rank so high as sires of distinguished sons. This is partly due to the fact that soldiering is often hereditary, and war a more regular trade than it seems. But many great men who were not soldiers have been sons of soldiers, and fighting

¹ It should be added that the lawyers as well as clergy are very sparsely represented in my list of criminals ; perhaps it is more profitable to convict than commit crime. On the other hand, the medical profession, which has produced several distinguished murderers—I mean, of course, murderers by intention—is much more fertile ground for the criminologist.

families are often distinguished for more than military ability.

My figures do the professors and schoolmasters some injustice ; for a number at least of the former have suffered, like the clergy, from enforced celibacy. And a curious fact may be cited in support of this consideration. Neither Oxford nor Cambridge, for all their intellectual eminence, has produced distinguished sons. Oxford can only boast the Wartons, the sons of a professor, and Davenant, the son of an innkeeper ; and Cambridge is in still worse case. None of its professors appear as sires at all ; and its solitary representative in my list is Jeremy Taylor, the son of a barber surgeon.

Yet British professors elsewhere—a not very numerous class—have had some brilliant sons ; indeed, their children have often been better than their books, as the sons of the clergy are better than their sermons. The same reason, therefore, that leads me to place the clergy above the lawyers in a corrected list as begetters of distinguished sons, compels me to rank professors and schoolmasters slightly ahead of physicians.

To me, at least, the most unexpected feature in this professional list is the low place occupied by the doctors. They are about as numerous as lawyers and clergy ; and although they may have been slightly less prolific than the roomy rectories of the past, a higher percentage of doctors marry than of clergy, or, I imagine, lawyers ; and for obvious reasons a doctor's children have a slight physical advantage over those of other men.

It will hardly be suggested that a doctor, whose training is certainly more arduous than that of a clergyman or a lawyer, is less intelligent than his fellows in those other professions ; and he should therefore produce at least as famous sons. It is true that Aristotle and Darwin, both men in the supreme rank, were sons of physicians ; but apart from these assuredly magnificent exceptions, each of my three lists shows that medicine is inferior to either law or the Church as a parent of genius.

It does not in the least account for this curious deficiency to say that doctors often follow in their father's footsteps ; for these hereditary tendencies are also noticeable in the other professions. Some slight influence may be accorded to the fact that the medical profession is less adequately treated in the biographical dictionaries than other vocations—every wretched little poet or essayist, for instance, is in the *D.N.B.*, and the official preferments open to lawyers and ecclesiastics have no counterpart among the physicians—but this does not account for the general deficiency of doctors as sires of statesmen, artists, poets, and philosophers. I am bound to record the fact ; I must also admit that I have sought, and failed to find, an explanation.

The high position of the artists in my list is partly due to heredity. The son often follows, and occasionally surpasses his father ; but the artists have also produced a musician, a minor poet, two novelists, and (of all unlikely things in the world) a Lord Chancellor. On the whole, and in spite of the proverbial reputation of Bohemia, an unborn celebrity might do worse than choose an artist for his father. In view of their numerical inferiority, they rank exceptionally high.

Artists, however, do not appear to beget either scientists or philosophers ; and beauty is thus divorced from truth in life, if not in poetry. The men of science are the most eclectic in my list, being derived from the gentry, farmers, parsons, lawyers, medicine, trade, and the cottage ; but the clergy are decisively first as parents of philosophers. The Church, however, would probably repudiate two at least of its metaphysical offspring ; for both Hobbes and Nietzsche were sons of the clergy. It is not for me to decide whether this is an argument for or against clerical celibacy.

Trade and Agriculture, Town and Country compared.—The figures for commercial parentage cannot be satisfactorily tabulated, a large number being described simply as merchants or shopkeepers. But of those which are more definitely labelled, the list is headed by 13 in the drapery or clothing trade and 5 tailors—the proverb that it takes

nine tailors to make a man is obviously a base libel. Hotel-keepers number four, and barbers three—Jeremy Taylor, J. M. W. Turner, and Mr. Sydney Webb. The provision trade seems less distinguished—there are only two butchers and one baker, and I have failed to discover a single grocer. On the other hand, the brewers have two, and the millers have produced two great artists—Rembrandt and Constable.

Bankers number four—or, if we include their predecessors the goldsmiths, seven—and stockbrokers three; while the mighty Gibbon was the son of a successful speculator. But these figures are too small to possess any real significance; and an attempt to distinguish between the producing and distributing occupations broke down entirely. Of actual producers from the soil, the farmers with 22, and the peasants with 10 famous sons, have no reason to be ashamed of themselves.

The despised and hated bourgeois may deserve all that is said of him by the satirist, but at least he has justified himself as a father. There is a probability, which I should be inclined to estimate very roughly at about 3 to 2, that the distinguished man will be born in the town rather than the country.

But this superiority is not, I think, due to any particular advantage of environment. It arises from the fact that the mercantile and professional classes are so largely represented as sires. Now a merchant is necessarily a townsman, at least by adoption; and with the distinguished exception of the country clergy, professional men mostly live in cities.

But it may also be said that the towns attract the most active, energetic, and ambitious men from the countryside, and that such men are on the whole more likely to produce distinguished sons than the countryman who stays in his own parish. And that consideration seems on the whole to derive some support from my lists.

I took no special note as a rule of particular towns as the birthplace of genius; it seemed to me futile to do so. But three cities simply forced themselves on my attention by

their frequent recurrence. Athens was one, Florence another, and above and beyond all others, London.

London has indeed been done some injustice by its historians. They have sung its praises as the haunt of mammon, but to me it is now the city of poets. The country boy comes to London to make his fortune, but with the exceptions of Sir Thomas Gresham and Mr. McKenna, the great financiers and business men are seldom Cockneys. The greatest sons of London town have been poets ; and a city which can claim Chaucer, Spenser, Milton, Pope, Browning, Keats and Swinburne—to say nothing of such minor lights as Ben Jonson, Kyd, Dekker, Shirley, Donne, Herrick, Crashaw and Cowley, and prose-writers like Sir Thomas Browne, Defoe, Gibbon, Lamb, Ruskin, Newman, and Huxley, assuredly need not hang its head in the republic of letters.

And I must add that, for some reason which escapes me, neither Paris, Rome, nor Berlin have played a comparable part in the production of continental genius. The literary glory of London is unique, incomparable, and unchallenged.

Preponderance of Middle Classes.—I must admit that these figures greatly surprised me. I knew, of course, that the inclusion of statesmen and great soldiers and sailors, who are largely drawn from the aristocracy and landed gentry, would give the upper classes a considerable representation. I was rather more vaguely aware that trade had given a great many distinguished sons to the arts and the professions—a debt which they have not repaid to commerce ; and it was to be expected that the professions would contribute rather more than their quota of distinguished sons.

But I had not anticipated the extraordinary preponderance of the middle classes in my list ; and I should have guessed that far more men in so varied a collection would have risen from humble parentage. These considerations made me draw up supplementary lists for comparison which, as mentioned earlier, yielded very similar results ; and also

set me to a further scrutiny and analysis of my gallant six hundred.

The Aristocrat goes for Leadership.—I found that 24 out of 53 statesmen, 9 out of 20 soldiers, and 5 out of 19 sailors, in my list, were of upper-class origin; altogether 38 out of 92.

Further, 4 out of 19 archbishops, 12 out of 40 other famous ecclesiastics, 4 out of 8 great saints—founders of new orders and so on—and 4 out of 15 explorers were aristocrats.¹

In these categories, then, 58 out of 159 distinguished men were aristocrats; about one in three.

On the other hand, there were no aristocrats in my short list of doctors, educationists, or musicians; and only one aristocrat out of 40 painters. Five of my philosophers were aristocrats—these mainly political theorists; and 5 historians, 4 scientists, 4 novelists, and 18 poets (not all of front rank).

In these categories, therefore, only 37 out of 264 distinguished men were aristocrats.

In the first group, then, 36 per cent, were aristocrats; in the second only 13 per cent. So great a disproportion is obviously too large to be accidental.

Now there is one thing that distinguishes the type which gravitates to the first group of soldiers, statesmen, and ecclesiastics, from that which finds its proper place in the second—the faculty of organising and taking responsibility, the gift of leading men or masses of men.

This faculty may be found in any rank of society, but it is peculiarly an attribute of the upper-class. It is, in fact, very largely because the ancestors of the aristocrat possessed the faculty of leadership that he is an aristocrat at all. And the comparative figures suggest that this faculty is transmitted, and to some extent becomes instinctive, in the following generations; obviously it influences, and

¹ Great saints are often ascetics, and ascetics mostly come of well-to-do families. The poor have nothing to renounce but their poverty.

This, however, is only incidental. The distinguishing faculty of the great saint (in spite of his humility) is the faculty of leadership. The study of origins revealed that this was very frequently hereditary.

in many cases dominates the choice of an aristocrat's career.

The upper-class type, then, instinctively goes for leadership in those occupations which demand personal and individual responsibility and initiative. When this faculty of leadership declines, or is for one reason or another not effectively exercised, then that particular aristocracy decays, and another takes its place. It may not be openly recognised, and may not even recognise itself, as an aristocracy; but it is that nevertheless.¹ The equality of man does not exist in human society.

Numerical Superiority of Middle Classes: Reasons.—The totals of my lists show a very considerable preponderance of the middle classes. Careful scrutiny indicates, however, that this superiority is slightly exaggerated; for the middle class alone draws recruits both from above and below. A distinguished man may, for example, be the son of a lawyer or a clergyman, but the grandson of an aristocrat; both Church and Bar owe a fair number of recruits to the landed class. (Medicine is less indebted to the territorial interest; possibly because it has fewer official appointments, and preferment and privilege do less for the doctor than for lawyer and parson. It is not, I imagine, so much the certainty of hard work as the lack of great prizes which deters the aristocrat from the service of medicine.)

At the other end of the scale, a distinguished man may be the son of a small tradesman, and thus rank as of middle-class birth; but that tradesman himself may be derived from the distinctively lower class of artisans or manual labourers.

¹ Cf. the autobiography of Mrs. Sydney Webb. "Deep down in the unconscious herd instinct of the British governing class there was a test of fitness for membership of this most gigantic of all social clubs, but a test which was seldom recognised by those who applied it, still less by those to whom it was applied—the possession of some form of power over other people."

It is significant that General Booth, who set out to rescue "the submerged tenth," wrote towards the end of his life: "There is something in breeding and education and conceit—a sense of superiority, which carries immense weight, and is a source of great force in the individual possessing it and in individuals on whom it is exercised." In other words, leadership.

I cannot pretend to give any precise estimate of the deduction to be made from the middle-class total under these heads ; at the highest, I should not be inclined to place it at more than ten per cent. net. The gross gain from above and below is apparently somewhat greater, but this gross total is itself subject to a deduction ; for the eminent middle-class lawyer, politician, or merchant, sooner or later joins the upper-class, and his sons, if eminent, will rank as aristocrats. The Cavendishes, Pitts, Foxes, Peels and Selbornes are instances in point.

Deficiency of Lower Classes.—The most unexpected feature of my lists was the extremely small proportion of distinguished men from the lower class—53 out of 546, or not quite one in ten.

It happens that I have known men of every class in practically every country of Europe, and I should not have suspected any very great difference of mentality between the aristocrat, the plutocrat, the shopkeeper, and the labourer. Granted that the professions are probably recruited from men slightly above the normal level of intelligence, and that into the submerged tenth there fall the bulk of those below the normal mental level ; yet the average mentality of a race is fairly constant, and seemed therefore on the whole as likely to produce exceptional men in one rank of society as another.

At the outset of this enquiry indeed, I had a general idea that the numerical superiority of the middle over the upper class, and the still larger numerical superiority of the lower over the middle, would compensate any advantage which social position or wealth gave the aristocracy or plutocracy. The truth is very different ; the difference between class and class, whether in the content or direction of individual energy, is very nearly decisive. If my figures do nothing else, they at least show how dangerous it is to form theories in advance of facts.

Being, no doubt, an essentially prosaic individual, who is never quite happy unless evidence can be reduced to decimals, I determined to see if a closer scrutiny of the specimens

in my biographical museum would throw any light on this puzzle. The quest was not altogether unprofitable.

An analysis of the individuals comprising my lists made me very doubtful whether great wealth is any real asset in the struggle for supreme intellectual distinction; on the contrary, from time to time I came across certain sinister indications that it might be a handicap. These matters lie outside the present enquiry; but it is the fact that many, I might say most, of the eminent men in my lists who came of undeniably aristocratic stock were anything but rich—it is the poorer nobility and gentry that provides the most fertile soil for distinction in this class.

Further, among the middle-class, the sons of professional men are hardly ever overburdened with great possessions; and the genius who comes of commercial stock is mostly of comfortable rather than wealthy parentage.

On the other hand, I had many cases of men in every class who triumphed over relative or absolute poverty and adverse circumstance—Kepler, Inigo Jones, Dickens and Abraham Lincoln are the proverbial examples. Evidently, then, poverty alone will not do as an explanation, at least a full explanation, of the paucity of distinguished men from the lower class. It may sometimes stunt and sometimes stimulate the soul; often it sharpens the wits and increases ambition.

Leaving the economic aspect of the problem therefore for the moment, I proceeded to enquire whether an analysis of lower-class men who had risen to fame or great position would throw any light on the problem. And now at last the pieces of the puzzle began to fit together.

Commerce was well represented, and this particular list could easily have been enlarged; but it is hardly necessary to give statistical proof that poor men sometimes make fortunes. Trade, indeed, and not the service of State or Church, is the poor man's highway towards distinction. Apart from trade there were four politicians and three Archbishops of humble birth—Canterbury, to judge from my partial list of Popes, seems slightly more democratic than

Rome ; but not many great ecclesiastics, either Protestant or Catholic, come from below. One great lawyer was of humble origin, but no great doctor. This last is no doubt due to the long and expensive course of training ; both law and medicine are essentially middle-class professions, with fewer opportunities for the youth of the lower class than the Church.

On the more academic side of life philosophers of humble birth were few, and only redeemed by the great name of Kant ; poets (not all of front rank), historians, and scientists followed in ascending order. But by far the most numerous of all famous men of lowly origin were the painters ; although the musicians would have run them close had my lists not been deficient in that type of genius. There was not one novelist ; the making of fiction is essentially a middle-class trade.

Now it can hardly be a mere coincidence that the upper-classes are fertile, and the lower-class infertile, in statesmen, soldiers, and great ecclesiastics ; or that the upper-classes are infertile, and the lower-class fertile, in great artists.

The explanation of this distinction is not, I think, very difficult. The aristocrat, as we saw, goes for leadership by instinct ; and in this quality the lower class are generally deficient. With one or two conspicuous exceptions, their political, military, or religious leaders are either imitative or revolutionary. Constructive work in Church or State is not, at least has not been, their forte. Art, however, is not a matter of leadership ; it is the product of observation, insight, and sometimes imitation—in other words, of emotional perception, and in these the man is as good as his master.

The great genius of art and music, and to a less extent of poetry and history, is as likely to come from the lower as the middle or upper strata of society. Other factors of opportunity, will, and expression, which will be analysed later, go to the fruition of genius ; but the raw material which consists of emotional perception is not a matter of class.

Lack of opportunity ; of economic freedom ; of leadership.—It would be absurd, however, to pretend that these considerations fully explain the decisive inferiority of the lower class in my lists of distinguished men. The causes, no doubt, are many ; but four main factors seem to call for mention.

In the first place, the lower the class, the further it has to mount to reach great distinction, and the fewer the available avenues. Now many men of humble birth lift themselves out of the rut, but their ambitions do not rise above a certain level. They distinguish themselves above their fellows, and become local lights and provincial celebrities—in which case they gravitate towards the middle class—but fail to obtain supreme distinction. My first list was confined to men of national or international reputation ; and it is significant that in my supplementary and shorter lists, which necessarily included men of rather less eminence, the proportion of lower class representatives considerably increased. In the first list of very distinguished men, the lower class produced 53 out of 546, or 1 in 10 ; in two supplementary lists of rather less distinction, the lower class produced 30 out of 152 or 1 in 5.

In the second place, the lower class have acquired the habit of obedience to circumstance ; they are less accustomed to responsibility, and more imitative than the aristocrat or the middle class man. They are aware of a standard above their own, and so long as they reach that standard they are generally content to copy it. In that case, again, they tend to be absorbed into the class above their own ; and if the family is economically or intellectually ascendant, the second generation will rank as middle-class.

And thirdly, the lower class are very heavily handicapped by lack of opportunity. There is not indeed, and I doubt if there has ever been, any conspiracy to keep down distinguished men of this class—except in the case of prominent revolutionaries who attack the rights of property ; on the contrary, there have been many generous patrons who have encouraged obscure talent. But obviously obscure talent does not always find a patron, and it may frequently

be discouraged as an aberration in its own narrow circle—where it has few opportunities of the solitary study that is essential to the more brooding type of genius. In that case, unless the will to succeed is quite exceptionally strong, it will wither and die unfruitful. Now the will to succeed is at bottom much the same quality as leadership; and in this, as we have seen, the lower class are generally deficient.

To these must be added a fourth, and perhaps the most potent cause of the failure of the lower class to produce its quota of distinguished men. The lower class does not occupy its position from choice, but necessity. It is the economically impotent class—which may be, but is not necessarily, the same thing as the intellectually impotent class. Now this means that in the majority of cases a boy of the lower class leaves school as early as possible, and is put to earn his living immediately.

If he shows talent while still at school, and also manifests quite early a definite bent to a particular career—two things which do not always go together—he may be picked out and given special training; in which case he may or may not succeed, but at least obtains a chance of success. But if he is not precocious he is probably put to a trade at once, and the chance of distinction for that particular boy practically vanishes.

The formal education which the upper or middle class boy obtains between 14 and 21, and which the lower-class boy loses, may not be of great value, but the expansive leisure of those years gives the mind an opportunity of developing on independent lines, which it is unlikely to obtain when the energies are concentrated on the daily task of earning a monotonous living. Darwin, for instance, and many other distinguished middle-class men, were very ordinary boys; put to earn a living at fourteen, they would probably have remained very ordinary men.¹

The ordinary work of the world is done in obedience to

¹ Napoleon, Kitchener, and Scott are similar cases. And cf. the *Memoirs* of Sir Ronald Ross. As a schoolboy he had no mathematical leaning; at 25 he worked out an original system of mathematics,

economic law, but the supreme work of the world is carried through in defiance of economic considerations; and those who are compelled to bend the neck to circumstance in these formative years seldom emancipate themselves, or reach their full potential stature. Those who cannot take risks cannot reap profits. Possibly not many would take advantage of the opportunity; certainly not all would fail to utilise it.

The deficiency of the lower class as a whole is manifestly in mental rather than physical energy, which leaves them at a disadvantage both in opportunity and in capacity to take advantage of opportunity—a double and decisive handicap. Distinguished men of the upper and middle class possess this special mental ability and, as a rule, special facilities for training in things of the mind; whereas distinguished men sprung from the lower class, who have this special ability, have as a rule to achieve distinction without these special facilities. They therefore achieve less both individually and as a class; the shortcomings as well as the sins of the fathers are visited on the children.

Little Change since Ancient Times.—One further point. The general results of my division of famous men into social classes suggest that in spite of the spread of education and the at least nominal equality of modern citizenship the proportion of men of humble ancestry and obscure birth who rise to supreme distinction is not, in fact, greater to-day than in ancient or mediæval history. We have our Keats, they had their Horace; we our Kant, they their Epictetus. And a rough catalogue compiled from Mommsen and Gibbon, whose chapters contain many poor men that reached the summit of success, fully confirmed this impression.

Unfortunately, it was impossible, or at least I found it impossible, satisfactorily to tabulate the results; but this particular enquiry produced a feeling of the permanence and continuity of essential social circumstance and the limitations of human endeavour, that was disquieting and not a little disillusioning.

SECTION 4.—THE RELATIONS BETWEEN CHARACTER AND LONGEVITY.

All life is a study in stabilisation under stress, and the central problem of life is continuity.

Self-preservation is the first law of the individual and the race, and the impulse to reproduce its kind is the second. The formation of the herd or pack, and the institutions of society and the State, are extensions and safeguards of this primary business of securing continuity ; the dominant and successful races in nature and politics are those which come nearest a solution of the problem of continuity. And so deeply has this need of continuity impressed itself that man has carried the matter a step further, and asserted the immortality of his soul—which is simply the problem of continuity in another dimension.

We may leave aside for the present the question of psychic continuity after death. It is probably not an insoluble enigma, but it has not been solved.¹ The problem of physical continuity, on the other hand, has been solved, at least temporarily, by every living organism that exists and perpetuates the existence of its kind.

The whole ancestry of man has operated to emphasise and enlarge his sense of the importance of personal individuality. His ego is the thing that has always mattered most, and still matters most—to him. It by no means follows, however, that it matters most, or even very much, outside the small radius of humanity and its immediate dependents. But the possibility that human personality may be relatively or absolutely an insignificant factor in the general scheme of things is difficult to grasp, perhaps still more difficult to admit, precisely because this happens to be our own familiar section of the universe. The earth which we inhabit is also an insignificant factor in the general scheme of things, but to us it bulks larger than the sun and moon and all the stars.

The living being is a finite organism in space and time, and

¹ Chapter 6, Section 1.

in all except the lowest ranks of life it is an individual unit compounded by its parents. But this achieved physical unity is finally incomplete as well as redundant, as is evidenced by its secret and often unconscious urge towards sexual union at adolescence, which impels and at times overwhelms the conscious will of the individual. Physical personality is a unit, but its deepest instincts warn it that there is no permanence in this composite organism, and drive it to perpetuate its existence along the historic lines of physical continuity.

Both physically and mentally the human coin is stamped in the living mint in which it was moulded. Its currency in space and time is roughly predetermined. It is likely to do as much as its parents, and unlikely to do more—it may do less if conditions are unfavourable. But however favourable the conditions, it will not live very much longer, or in the vast majority of cases, accomplish very much more than its immediate ancestors.

Racial and Individual Will.—Whatever the extent or limits of freewill, it is the fact that will exists, and its existence is manifestly a consequence of life. Will has no known existence apart from life, but we recognise its existence either unconsciously or consciously, in every form of life from lowest to highest; and we must therefore assume that this product of the finite living organism is a necessary element of that organism.

In its simplest form the physical Will to Live is nothing more than the natural tendency of any organism, whether living or not, to retain its shape, consistence, and unity over a certain period of space and time; and even the most subtle mental manifestations and spiritual aspirations of the sentient organism are derivatives, direct or indirect of this physical Will to Live. Will represents the sum of the energy of life in one particular individual; and every act, desire, and thought is an expression of that energy, and consequently a loss which has to be repaired.

The equation of the Will to Live can therefore be stated as the total inherited energy of the living mechanism, plus

the energy it absorbs from day to day as stimulus and fuel, but minus the energy it expends in obtaining that stimulus and fuel. Energy absorbed from without is the physical and mental income of the organism, energy expended in action and thought is expenditure; and the Will to Live is the profit and loss account on this petty selection which the physical unit makes in time from the eternal reality of energy.

The Will is indeed an exact barometer of our capacity for absorbing energy. When that energy can no longer be maintained at its normal level the Will to Live begins to fail, physical desire decays, mental purpose presently diminishes, and the action of life declines as our ability to absorb stimulus grows less; until finally the Will to Live and life itself both come to their appointed end in death.

These successive processes require further examination.

Life is always the integration and cohesion of a physico-chemical organism—in its lower categories a unicellular, in its higher a complex multicellular organism. That integration and cohesion must be maintained, or the organism will die. In course of time it does in fact die and disintegrate, but not as a rule until it has produced a similar organism that will continue the series; and this process is repeated indefinitely.

This integration and cohesion, this essential continuity of the living organism, is the basis on which every form of Will is built. Now the duration of individual life in any successful—that is to say, permanently reproductive—species, is regulated by the time required to secure the continuity of that species, and therefore

- (a) the duration of the individual Will to Live depends in the main on the past racial need of the organism; and
- (b) the more complex and variable forms of will, sexual desire and mental purpose, are all ultimately traceable to this basic Will to Live.¹

¹The acquisitive man seeks possession and power, because they add to the margin of safety and comfort in living. The sexual man is obsessed by desire, on which the continuity of the race depends. The contempla-

If the first proposition is true, it is obvious that the individual Will to Live must persist on the average long enough to secure the continuity of the next generation, but once that racial continuity is attained, the individual Will to Live must decline and eventually disappear.

And if the second proposition is true, it is obvious that every act of the individual, whether physical or mental, must derive directly or indirectly, from this need for continuity.

Time-process of Growth and Reproduction.—The Will to Live is common to all, but its duration depends on racial need.

The simple individual Will to Live is the average of this racial need ; in its primitive form it ensures the individual living long enough to secure the continuity of the species, and no longer. When that continuity is attained there is no need for the individual to go on living, and it dies.

In many of the lower ranks of life the continuity of the species is secured without parental care, and therefore the life of one generation ends when the seeds of the next are produced, and before they fructify. But with the higher animals prolonged parental care becomes necessary, and life must consequently be retained until the next generation is mature and capable of reproduction ; but we find that in fact it is now often retained considerably longer than that essential minimum of safety requires.

The reason for this is clear. A larger proportion of the offspring survives, and the apparent fertility of the species therefore diminishes—continuity is secured at less initial cost, and with a lower ratio of reproductive effort. Expenditure of energy is reduced in one direction, and conserved in another ; the fact that racial continuity makes a lower draft on the energy of the individual permits life to lengthen beyond the minimum demand of continuity.

Among human beings, with whom alone we are now concerned, these two causes have operated to lengthen life

tive, who scorns material possessions and sexual gratification, is still concerned with the Will to Live—but in his case the life of the soul, not the body, absorbs his interest.

considerably since the family separated from the other primates. In the first place, the longer duration of infancy and childhood has involved an increase of the whole ratio of existence. And in the second, the greater security of the species has reduced the expenditure of energy on racial continuity, and individual life is consequently longer and fuller than the bare minimum of racial need.

But even with human beings, the actuarial calculation of the average duration of life among those who reach the age of 21 was until recently only about 62 years in this country.¹ The average age of marriage is 27, and the next ten or fifteen years sees the birth of the new generation; it is therefore obvious that the average of parental life does little more than cover the period required by the younger children to attain maturity. And, moreover where the average age at marriage is lower, both birth and death-rates are higher, and the average expectation of life is less.²

These facts indicate that the average racial Will to Live is much the same in all men—it survives until physical continuity is assured. But it is directly influenced by the individual family as well as common racial history; for longevity, tendency to disease, and suicide—that emphatic negation of the Will to Live—all run in families.³ And it is

¹ The time-processes of growth and decay are approximately equal. According to G. P. Bidder, 28 is the age of greatest reproductive fertility, and therefore the physical zenith of the organism; until then it has shown a yearly profit on the energy it absorbs, from then it shows a slight yearly loss. The average age at death of the mature organism is $28 \times 2 + 6$.

Recent statistics show that the average duration of life has perceptibly lengthened, which suggests that the process of loss may be retarded a little by easier conditions.

² The death-rate, of course, depends on many factors, such as sanitation, diet, and climate. But the fundamental fact is as stated.

³ The kings of England are an interesting and easily accessible example of family longevity. The Plantagenets, Tudors, and Stuarts were short-lived families; 23 sovereigns (omitting those who died violent deaths) averaged only 53 years. The Hanoverians were a long-lived family, 7 sovereigns averaged 73 years. Of the former only one (Elizabeth) lived to 70; of the latter 2 out of 7 were over 80, 2 over 70, and the 3 remainder reached 69, 68, 67, years of age.

The average longevity of a family can be calculated with almost mathematical precision. The average duration of life among a number of persons, both of whose parents reached 80, was 20 years longer than in another series in which the parents died under 60. Raymond Pearl, Liverpool Medical Institute, 20th February, 1925.

further influenced by personal circumstance ; all life is a study of stabilisation under stress, and where the stress is low—that is, where economic and social conditions are favourable, and the maximum of attainable security and freedom from anxiety is approached—the individual unit can maintain the normal level of energy much longer, and life may extend far beyond the average for the whole population.¹

These factors on the whole tend to cancel out, so far as the general problem of continuity is concerned. A short-lived family does not always produce fewer children than a long-lived ; it is often exceptionally fertile.² But the family death-rate is heavy and the family itself will probably sink in the social scale from economic causes. On the other hand, the family that is wealthy and secure will live long, but produce few children—its wealth may be partly due to its small expenditure on that account in the past—and it will gradually breed less until it dies out. The excessive security of the individual has made the family sterile.

Death a problem of Fatigue.—Death is essentially a problem of fatigue, which is common to every organism that lives under the stress of spending and restoring its normal daily stock of energy. The problems of fatigue are both complex and difficult, but they have a direct bearing on the liberty of the will.

We must all sleep. Now sleep is not a matter of will, but of lack of will ; we sleep, not because we want to, but

¹ The average expectation of life for the population of England which reaches 21, is 62 years. The obituary columns of the *Times*, taken for a total of 500 consecutive names (omitting a few who died under 21) yields an average life of 70.3 years. Two similar series of 500 from the same newspaper only vary by a decimal point.

The figures are a little misleading, because the ages of women who die between 30 and 60 are seldom inserted, whereas those who live to a ripe old age are nearly always published. But the major fact is that only the more comfortable classes advertise in this newspaper.

How considerably this factor affects life may be shown by another figure. Of these 500, no fewer than 137, or more than 25 per cent. lived to over 80—an almost incredible proportion.

² Queen Anne, the last of the old line of English sovereigns, furnishes an extraordinary example of a failing family. She died at 50, having had many children, all of whom predeceased her, and several miscarriages.

because we cannot help ourselves. The man who wills himself to sleep fails, but the spent sentry falls asleep on duty. The mere threat of trouble keeps the prosperous man awake, but the bereaved parent sleeps soundly after the death of a beloved child, and the condemned murderer the night after the trial ; both are exhausted by the ordeal.

It is very much the same with death ; we die, not because we want to, but because we cannot help ourselves. If the will were unconquerable, as Epictetus suggests, we should each of us carry out his purpose steadfastly through life and—since the will to live is the summation of the whole personality—I suppose that nobody would ever die except from accidents.¹ But in fact it is not so. The will may be unconquerable within its limit, but once that limit is passed it is impotent. The question is, What is that limit ?

The limit of stress beyond which the human will can no longer stretch itself out upon the rack of life is for the most part fixed by ancestry. But it is modified to some extent by individual opportunity and local circumstance. Men of the same family live on the whole very much the same length of time, bar accident, but they devote their energies to different ends. The Swinburnes, for instance, are a long-lived family ; but one Swinburne made a name as an admiral, another as a poet, and a third made a fortune on the Stock Exchange.

We go through life at a certain regulated pace, which seems in the main determined by the even income and expenditure of individual energy. Occupation, work, and exercise are healthy, but not excess or overstrain. We may put on the brake a little, and thus accumulate or restore our exhausted stock of vital energy ; or speed things up a little, and thus live for a time on our small personal capital, whether inherited or individually acquired. But in the long run we have to pay it back—or pay the penalty.

¹ Strictly speaking, of course, there is no such thing as accident, since every event springs from some precedent cause. But from the limited standpoint of the individual accident exists, and it may be conveniently defined as an event which could not in the ordinary course of things have been anticipated. It is inevitable that a man must die, but an accident if he is killed in a railway collision.

It is impossible to make a general statement as to the amount by which we can vary the pace in either direction, for it differs in every individual. The evidence is diffuse and not always consistent ; but that we can in fact so vary it is not, I think, in doubt. The valetudinarian and the bedridden prolong their tedious lives beyond the natural spell ; while men of the Napoleon and Curzon type, who starve themselves of sleep and whose lives are filled with endless toil, certainly shorten their days. In the one case the living machine has little wear and tear ; in the other the pressure is too high, and there is no time for recuperation.¹

Let us put this matter to such tests as we can apply. The eight male ancestors of Curzon whose birth and death are recorded lived on an average 78 years ; the great Curzon died at 67. He seems therefore to have shortened his life by 11 years.

There is no record of the ancestors of Napoleon, but his four brothers averaged 71 years ; his 13 nearest male relatives—including his father, who died at 39—averaged 63 years. Napoleon died at 52. He seems therefore to have shortened his life by 11 years.²

But Napoleon's life was harder than that of Curzon. And it is significant that Napoleon fell short of the family average by 17.5, Curzon only by 14 per cent.

It can therefore hardly be true that the date of our death is precisely determined, as Napoleon himself believed. "*Quod scriptum, scriptum*," said the French Emperor ; but the writing on the wall of destiny is only the shadow of the event, which is decided by our personal activities.

The pace at which we live can also be varied by physical

¹ It will be shown later that distinguished men live on the whole longer than ordinary men. But very long-lived men are hardly ever distinguished ; the centenarian is only famous for his century.

² There are several cases of extreme longevity. Old Parr married at the (reputed) age of 120, and his widow stated that during the following twelve years he betrayed no sign of the infirmities of age. A butler, aged 120 is buried in Battle Churchyard, Sussex ; and an eighteenth century countess was cut off prematurely in the early hundred and thirties through breaking her leg from climbing a tree.

³ According to Sir Berkeley Moynihan the report that Napoleon died of cancer in the stomach is not true.

excess, which clogs or deteriorates the machine, as well as overwork. Excessive eating and drinking are probably the most common forms of physical indulgence, but personal temperance is obviously a matter within our own control. Now the figures of the United Kingdom Provident Institution show that the difference in mortality between abstainers and non-abstainers from alcohol insured in that office over a period of 60 years was 20 per cent in favour of the former, while during a shorter period of more recent date, when all classes had become more temperate, the difference between abstainers and non-abstainers from alcohol was still 10 per cent.¹

There are no general statistics of voluntary abstention from over-eating, which is probably more common and certainly not less harmful than indulgence in alcohol. But compulsory food-rationing in Denmark, a country of large appetites, during the 1914-8 war, reduced the death-rate considerably; and the removal of the restrictions after the war sent it up to its former level.

It is clear, therefore, that a temperate way of life in work and food may lengthen our days by 10 per cent; while excessive indulgence or unrelieved toil may shorten them by 15 per cent. or more. The time-penalty of excess is greater than the reward of moderation, but in either event the choice is well within our range of liberty. Within the limits, then, of from 10 to probably rather more than 25 per cent, the individual is free to lengthen or curtail his life by his own personal habits.²

¹ *Times*, 19 March, 1925. The figures of the Abstainers and General Insurance Co. (which, however, contains only a small proportion of abstainers, and must therefore be used with caution) show similar results. *Times*, 27th March, 1925. It must be remembered, of course, that excessive alcoholics are not likely to insure in either office, and that the man who abstains from the habit of the majority is probably of strong character, and strong character generally goes with strong physique.

² We are also free in the matter of reproducing life. Between 1880 and 1920 the birth-rate in most European and other white countries fell by some 25 per cent. There is no reason to suppose any decline of natural fertility; the fall was largely due to the knowledge of methods of prevention which were hitherto not available. That knowledge, however, was still not available to all classes, and the crude figures cannot therefore be taken as a general average. They do not therefore show us the limits of

The desire to live and long life.—On the other hand, it has often been supposed that the sick who desire to live longer will live longer ; in other words, that the mere desire to live will itself lengthen life. But this raises an extremely difficult problem, comparable to the question whether any man by taking thought can add a cubit to his stature.

We know, indeed, that any man by taking exercise can add to his capacity for walking, and any man of ordinary ability by studying a subject can master it in time. But this is achieved by concentrating all the available power of the organism on one end ; it does not necessarily increase the total power of the organism. Is it then possible, by concentrating all the available power of the organism on its physical continuity, for a man to live longer than would otherwise be the case ?

It may be so. Few men live up to the limit of individual capacity in the quality of their life, and this is probably true of the quantity of life as well. Most of us have several interests, which add to the enjoyment but increase the expenditure of life ; and there is, at any rate in the young, a reserve of latent energy for any sudden crisis. By abandoning these interests and concentrating this reserve on the supreme issue, it is possible that we may slightly prolong a threatened life.¹

Certainly the sick man who determines to get well is more likely to recover than one who does not care whether he lives or dies. But this proves little ; for the determination to recover may be the mere reflection in consciousness of the vigorous organism struggling against the threat to its existence, while indifference and resignation are probably successively descending stages in the index of diminishing vitality. And it is the fact that many men who hate the idea of death have nevertheless died prematurely ; while many who have longed for death have nevertheless continued to live.² freewill, but the minimum limits within which many men exercised their freewill.

¹ The standard case is probably that of Hezekiah. But the dates are obscure, and the mythical element is strong, in that story.

² Newman wrote at 73 that there was nothing left except to prepare for death ; but he lived another 16 years. But Newman was a disappointed

On the whole, then, I am doubtful of this proposition. There are too many exceptions ; and although we can and do shorten and prolong our lives by our own action, the total period of individual life is fixed by the sum of individual conduct from the beginning, not by any sudden determination when the crisis is upon us. Death-bed resolutions may be valid in theology ; they have no legitimate parallel in biology.¹

From these doubtful cases and individual exceptions we can now turn to the general problem of the Will to Live.

The Will declines as Age increases.—The average length of life is clearly conditioned by the racial need for continuity—it lasts long enough to see the next generation secure. Individual life may be shortened by privation or excess, or the accident of environment ; or lengthened by temperance ; and it may perhaps also be slightly lengthened (but not very greatly) by the conception of some great enterprise—for an idea takes longer to mature than children—but the individual Will to Live diminishes steadily as the racial period accomplishes itself, until it is eventually extinguished altogether.

The statement that the Will to Live is eventually extinguished must sound excessively improbable to the youth who rejoices in the sheer exuberance of physical existence ; there are hours in the lives of all healthy men when the delight of bodily well-being is almost ecstatic, and the

man, a type of the lost leader ; the mental will was broken by repeated frustration. He came, however, of a very long-lived family, and the physical will survived.

¹ The fear of death is a direct reflection of the Will to Live. It is probably stronger in Europeans than in some aboriginal races elsewhere ; where travellers have noticed that a man makes up his mind to die and death soon comes. I doubt if the superior (and inherited) vitality of the European often permits him to do this.

Dr. Johnson was a famous case of the fear of death. It seems to have been an outcome of his vigorous mentality ; certainly he lived rather longer than his constitution and habits seem to justify. (He died at 75.) Perhaps it helped to prolong his life.

Other famous cases were Renan (69), Zola (62), Daudet (57), and Tolstoy, who wrote that " Nothing is worse than death, and when we consider that it is the inevitable end of all that lives, we must also recognise that nothing is worse than life." But the mere profession that life is evil does not make the suicide, for Tolstoy died of natural causes at 83.

mere thought of death an impertinent anachronism. But let us put this matter to the test.

At fifty the dying Cecil Rhodes, who had long been familiar with the prospect of premature death, laments bitterly at the last, "So little done, so much to do." Neither racial nor individual Will to Live was sated; and the idea for which he stood, the young colony of Rhodesia, was not yet secure.¹

At 59 the will to live is still strong. At the beginning of his last illness Cromwell bursts out to his physicians: "Do not think I shall die—say not I have lost my reason. I tell you the truth—I know it on better authority than any you can have from Galen or Hippocrates; it is the answer of God Himself to our prayers." Even when compelled to abandon hope of recovery, he was still reluctant: "I would be willing to live to be further serviceable to God and His people, but my work is done!" Individual will was breaking but mental will survived a little longer; for he knew too well that the Commonwealth, the idea for which he stood, was insecure.

At the same age, it is true, Macaulay confided to his diary, "I feel as if I were dying of old age. I am perfectly ready, and shall never be readier. I am sensible of no intellectual decay, not the smallest." The will to live was evidently broken, and ten days later he was dead. But this was a very exceptional case, for Macaulay was both happy and successful, and his great work was still unfinished.

At 61 the fierce Clothaire of France bitterly resents the coming of this great King "who pulls down the strength of the strongest kings." The political idea for which he stood and for which in his rough fashion he fought as valiantly as Cromwell, was still insecure.

At the same age, however, the placid historian Lecky, admits in the *Map of Life* that the normal span of existence is long enough. His fame was assured, and he had embodied in permanent form the idea for which he stood. The Will

¹ There is a story of Balzac, who died worn out with excessive toil and irregular hours at 51, pleading with his doctor for six months, six weeks, and at last six days to finish the Human Comedy. But its authenticity is doubtful.

On the whole, then, I am doubtful of this proposition. There are too many exceptions ; and although we can and do shorten and prolong our lives by our own action, the total period of individual life is fixed by the sum of individual conduct from the beginning, not by any sudden determination when the crisis is upon us. Death-bed resolutions may be valid in theology ; they have no legitimate parallel in biology.¹

From these doubtful cases and individual exceptions we can now turn to the general problem of the Will to Live.

The Will declines as Age increases.—The average length of life is clearly conditioned by the racial need for continuity—it lasts long enough to see the next generation secure. Individual life may be shortened by privation or excess, or the accident of environment ; or lengthened by temperance ; and it may perhaps also be slightly lengthened (but not very greatly) by the conception of some great enterprise—for an idea takes longer to mature than children—but the individual Will to Live diminishes steadily as the racial period accomplishes itself, until it is eventually extinguished altogether.

The statement that the Will to Live is eventually extinguished must sound excessively improbable to the youth who rejoices in the sheer exuberance of physical existence ; there are hours in the lives of all healthy men when the delight of bodily well-being is almost ecstatic, and the

man, a type of the lost leader ; the mental will was broken by repeated frustration. He came, however, of a very long-lived family, and the physical will survived.

¹ The fear of death is a direct reflection of the Will to Live. It is probably stronger in Europeans than in some aboriginal races elsewhere ; where travellers have noticed that a man makes up his mind to die and death soon comes. I doubt if the superior (and inherited) vitality of the European often permits him to to this.

Dr. Johnson was a famous case of the fear of death. It seems to have been an outcome of his vigorous mentality ; certainly he lived rather longer than his constitution and habits seem to justify. (He died at 75.) Perhaps it helped to prolong his life.

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to Live was obviously sated, the mental concept expressed, and four years later he died content.

At 67 Curzon, although in high political office, is conscious that he has no real power. He confesses to a friend that "he has nothing left to live for in public life," and two months later dies a disappointed man.

This was perhaps rather an unusual case ; but the next decade sees a momentous change. Life may still be pleasant and placidly enjoyed, but after seventy there are no more violent outbursts at the approach of death ; the tyrannical autocrat gradually becomes a benevolent despot.

At 72 Darwin writes to Wallace, " I have everything to make me happy and contented, but life has become very wearisome to me." His work was done, the idea for which he stood accepted ; and a few months later he too died content.

At the same age Archbishop Tait says " It is better I should go now. Other men will do my work better. It isn't so very dreadful after all."

I recall a noble old soldier, an Indian Mutiny veteran of 75, who said to me quite simply and unaffectedly in our last interview, " I long for death." Yet the life that was drawing painlessly to its natural close had been happy and prosperous. And at the same age the eighth Duke of Devonshire's last words were, " Well, the game is over, and I am not sorry."

Among the last recorded words of Disraeli, at 76, were, " I had rather live, but I am not afraid to die"—an almost acquiescence which shows that hitherto unconquerable will on the point of collapse.

Another few years, and the change, even in the most vital personalities, is complete. At 80 Cardinal Manning " feels as if life were over. I have no craving, or wish, or intention, or unfulfilled desire. The time is too short to begin anything new." Physical energy and mental will have both perceptibly diminished. It is not that the game is not worth the candle, but that there is so little candle left to play it by.

At 82, Carlyle declares that, " the final mercy of God is

that he delivers us from life, which has become a task too hard for us."

At 83, on his last day, Tennyson says, "Death? That's well."

A year before Morley's death at 85, the Pope lay dying. The mystical agnostic, asked what he thought of life and death, replied unexpectedly, "I repeat the words of the Pope—*Libera me, Domine.*"

John Wesley came of a long-lived family, and he attributed the perfect health which he enjoyed until 84 to continual exercise, change of air, and the will of God. Soon afterwards his strength began to fail; "I feel no pain from head to foot, only it seems nature is exhausted." He died peacefully without regret at 87.

Gladstone was as active, physically and mentally, as Wesley. But when one assured him in his 89th year that he would live another decade, the aged statesman answered, "I trust that God in His Mercy will spare me that."

Finally when Brillat-Savarin lay dying at 93, that great physiologist observed: "If you ever become as old as I am, you will see that death is as necessary to man as sleep."¹

The idea for which they stood had fully expressed itself. We are such stuff as our desires are made of; but those who live long beyond the normal span discover that desire is dead, purpose ended, and the mental will to live is itself outlived.

This, then, is the ultimate limit of human faculty, the utmost stretch of the alleged unbreakable will of man. At fifty we demand immortality. But long before the century is complete we are content with rest. The individual organism has accomplished its permitted work, and it must cease.

I attempted to put these matters to the proof of statistics, but the only mathematical measure of the decline and fall

¹ One apparent exception may be noted. When over 90 Mrs. Haldane said, "Some bodily powers, I suppose, are going, but I begin to feel moving within me in a way which I sometimes cannot understand the powers of the world to come." Her son, Lord Haldane, testifies that her outlook and mental grasp continued to widen. But the will to live was evidently not extinct, for that remarkable woman survived nearly ten years longer.

of the Will to Live in a community is the number of deaths at different ages year by year. The test is by no means an exact one, but the results are of interest as an arithmetical check. It should be said that the crude figures are unduly favourable, since they are calculated from recent years in England and Wales, where conditions are on the whole more favourable than elsewhere, and where the length of life has of late been steadily increasing.

Proportion of Population surviving at various Ages.—Still-born (3 per cent) and Infantile Mortality between ages 0-5 (average 16 per cent) excluded.

Age From	Deaths per cent.	Proportion survivors	Fall in Will to Live
5— 14	3.6	96.4	3.6
15— 24	5.2	91.2	8.8
25— 34	5.9	85.3	14.7
35— 44	8.2	77.1	22.9
45— 54	12.0	65.1	34.9
55— 64	17.5	47.6	52.4
65— 74	23.5	24.1	75.9
75— 84	19.2	4.9	95.1
85—100	4.9	—	100.

The Will to Live then, when tested by the number of survivors, diminishes year by year. Its fall is almost imperceptible at first and during the productive period when physical energy overflows and the next generation is being born ; very slow during the adult years of maximum responsibility, and then continuously more rapid as the burden to be carried lightens. It will be seen that the figures tally very closely, like the musical accompaniment to a song, with the diminishing protests quoted above and the final acquiescence in death.

I noted, at first as a coincidence but no more, that by the age of 62 only half the total population survives ; the other half is already dead. This age is practically the grand climacteric of the ancients ; it is also the age by which the offspring has become independent, the continuity of the family is assured, and one great reason for going on living is

removed. Beyond this age the death-rate increases very rapidly.¹

Another fact, however, suggested that this might be more than a coincidence. The suicide rate increases in practically all countries with every decennium from adolescence ; but it reaches its maximum at 62, after which it steadily declines. So absolute a contrast cannot be accidental.

Suicide due to defective Will.—Suicide, however, is a problem within the problem of the Will to Live ; and therefore a problem within the problem of the limits of human liberty, which is confined to life. It is clear that most men die when the physical Will to Live is exhausted. But the suicide is one in whom mental will is exhausted before the physical, and who takes steps to end that physical continuity to which others cling. He is therefore the one apparent exception to the rule of continuity.

It seems at first impossible to bring every form of suicide under a single formula. Male suicides, for example, are four times as numerous as female at every age and period except between 15 and 25, when female suicides exceed male.² Now male suicide in middle and late life may be accounted for in terms of the final exhaustion of the individual will after a long period of excessive stress ; but this is hardly a convincing explanation of the young woman who throws herself in a pond because her lover is faithless or she is parted from her child. The physical will to live is still strong, and a moment's reflection would suggest that faithless lovers sometimes return and lost children are sometimes restored.

¹ I checked the above figures with similar tables constructed from Australian, New Zealand, and South African vital statistics. The Australian results are closely comparable to the British at all ages, with a heavier infant mortality and a slightly earlier age at death ; New Zealand gives very similar results. The South African figures are considerably less favourable at all ages. In Australia half the population (excluding infantile mortality) is dead at 60 ; in South Africa at 50.

² Of 2747 suicides, only 545 were women. Of these 342 were widows or 63 per cent. Of the 2205 male suicides, 1530 were widowers, or 70 per cent. This suggests—I do not assert it proves—that men feel the loss of their wives 7 per cent. more than women the loss of their husbands.

Of the 545 women committing suicide, 396 were childless, or 72 per cent. Of the 2205 men, 1474 were childless, or 66 per cent. This again suggests that women feel the lack of children 6 per cent. more than men.

It is moreover extraordinarily difficult to read the suicide's mind. He seldom leaves, and is often incapable of leaving, a connected account of his mental processes; even when he does so, the ostensible reason is often not the real reason. Again, the suicide may change his mind after the decisive act is committed. In most cases—as in throwing oneself under a train, or poison—it is too late, but not in suicide by drowning. There are instances in which the sudden shock of immersion has restored the lost will to live—perhaps by flooding the temporarily exhausted mind with the latent physical instinct of self-preservation.

Further, the suicide rate varies considerably with race and country. No very safe deductions can be drawn from these particular figures, but religious belief clearly influences self-destruction. The statistics for Bavaria, for example, show a lower ratio for Catholics than Protestants, and a still lower ratio for Jews—in contrast to the insanity statistics for the same country, where the Jewish percentage is higher than the Catholic, and the Catholic higher than the Protestant. This can hardly be dissociated from the fact that Catholic ethics are more sternly condemnatory of suicide than Protestant. Nor can we forget that while in all European countries there are three or four male suicides to one female, there are more female suicides than male in India and Malaya, where *suttee* is a religious doctrine.

More significant, perhaps, is the fact that the suicide rate, approximately steady in a given country under given conditions year after year, depends very largely on temperature. Countries with a large range between maximum and minimum temperature have a higher suicide rate than countries with a smaller range. This indicates that the stress of the annual change from maximum to minimum is too great for the weaker individuals.

Another table shows that we are more sensitive to rise than fall of temperature. Of 1,200 suicides 336, or 28 per cent., occur in spring; 372, or 31 per cent., in summer; 264, or 22 per cent., in autumn; and 228, or 19 per cent., in winter.¹

¹ The only exceptions in Europe are Holland and Norway, where the spring months are the most fatal.

In the first twenty years of life the suicide rate is insignificant—about 1 in 200,000 ; but thereafter, for the next forty years, it rises steadily year by year, until at 60 it has increased to 1 in 1569. This may indicate either that the will to live is slowly diminishing, or that the stress of the struggle is slowly increasing ; or more probably both.

But it is highly significant that at 62 the suicide rate reaches its maximum, and thereafter declines. This demonstrates that the major factor in suicide is mental collapse under stress, rather than decline in physical will to live ; for natural deaths increase more rapidly after 62 than before, although the chief stress of the struggle for life—the support of a family—is now over.¹

A suicide, then, may be defined as one who is cornered by circumstance and does not see the way out ; like an animal caught in a cage who cannot wait for the door to open, and dashes itself to pieces against the bars. Essentially it is the deficient will that makes the suicide ; he is a man who breaks down under the stress of living, and takes the shortest way to end it.²

But a bridge that breaks down under too heavy a load is not so much an exception as a proof of the laws of engineering ; the suicide is one whom life has tried too high, and who collapses under the load. All life is a study in stress, and the amount of stress which the ordinary individual can bear appears to be fixed at the immediate ancestral level—the level, that is to say, of the family, not the race. If there is too little stress the will sags and becomes flabby—men die of ennui as well as overstrain. (It is for this reason that the rich man's son degenerates ; he is removed from the struggle for life, and finds no sufficient substitute.) A little additional stress makes the will taut and adds to its power of

¹ Against this, it might be argued that the suicide rate for unmarried is far higher than for married people—about 60 to 40 per cent. ; yet married people have a greater struggle to live. But a high proportion of unmarried suicides are caused by frustrated sexual desire.

² A study of the last letters of suicides—not always trustworthy documents—indicates that, like the rest of mankind, some do and some do not believe in a future life:

resistance ; too much, and it snaps, and there is a breakdown, or in extreme cases, a suicide.

In each individual, however, the breaking-strain may come at a different point. One man bears physical pain heroically, and collapses under domestic bereavement ; another bears the death of his wife with fortitude, and is broken by financial loss ; a third survives both misfortunes, and succumbs to what seems mere trivial accident. But the final or alleged cause of suicide is not always a trustworthy index to character. An ambitious man may have been really broken by a long series of disappointments which he has borne with apparent stoicism, and be brought down by some trumpery incident that ends his career.¹

No doubt many men find life not worth living but do not commit suicide ; they go on living after a fashion for a time in the hope that things will somehow get better. Where there is hope there is always freedom ; but despair enters as freewill fails. Hope and despair are maximum and minimum records on the psychological thermometer which show the current level of freedom.

It is only when the invisible breaking strain of pain, or disappointment, or remorse is definitely passed that the wretched individual finally takes the ultimate line of least resistance, and ends his life. In this connection it is significant that suicide runs in cycles, because men are imitative in destruction as well as construction. One suicide who carries out his purpose nerves others who merely find life not worth living, and have passively tolerated it, to take the decisive step.

But the fact that suicide runs in families, and tends to repeat itself at the same age in successive generations, indicates that the invisible breaking-strain of the will, which exists in every character, and which is undoubtedly lower and more vulnerable in some men than others, is an inheritable part of the temperament and directly related

¹ A suicide recently declared that the only reason for his act was the fact that he had been elected a country instead of a town member of a London Club. But that absurdity was obviously only the culmination of a long previous history of trouble.

to the will to live, of which it appears at first sight to be the very reverse.

The suicide has lost both the hope of life and the fear of death ; he has no longer any choice and therefore no longer any freedom. In the last analysis, then, the act is not so much a proof of freedom as an indication that freedom no longer exists for that particular individual. He has fallen below the minimum limit of life and liberty.

Once the invisible limit of safety is past, every additional burden, however slight, adds to the tension and the danger ; but with most men rest and sleep, which act as a relaxation and unlocking of the overkeyed organism, are sufficient safeguards. There comes a point, however, at which the strongest will must snap. In that sense every man is a potential suicide, for in the end life tries us all too high, and the will collapses in that final unlocking of the overkeyed organism which we call death.

Mental Purpose and Longevity.—In the complex structure of human life continuity takes many forms, and mental purpose may usurp the place of physical desire. When the continuity sought is that of idea or doctrine it may take the place of the family, as with Rhodes and many others ; but once the success of the idea is assured, or it is seen that success is beyond mortal power, the normal racial limit of the Will to Live again asserts itself, and men will die contented if they feel their work is done.

The struggle for life enforces a concentration of the Will in one particular direction ; it necessitates a selection of certain things and tacit renunciation of other things. And it is obvious that the more we concentrate on one aspect the less are we likely to perceive other aspects of existence ; set mental habit and eventual ossification of mind is the price we pay for concentration of the intellect in one particular direction. There comes a time when the things we ignore no longer exist for us ; but the realisation of the things the individual selects is the meaning which the universe has for him.

This selection, then, ultimately determines character ;

the reason that men do not make the most of themselves is that in the majority of cases no dominant idea emerges apart from individual continuity.¹ We do not take full advantage of the presented range of choice, and the catalogue of every life has its blank pages of missed opportunity.

But when the period of growth is finished, the mind sets in its own mould, and unconsciously ignores what it once consciously rejected. The dominant idea controls and eventually limits the mind, because it makes us reject other perceptions that would conflict with it; and in time the dominant idea becomes fixed, instinctive, and intolerant of other ideas.² Individual character has set, and remains permanently set till death. The dying parent who has lived for his children dies happily with his family around him. The dying nun grasps the crucifix. And the dying miser clutches a hidden sovereign so closely that the rigid fingers have to be forced apart before burial.³

Life fulfils itself in our idea of life; and indeed the reason that we die may be ultimately because our ideas of life are inadequate. An idea is always based on perception and selection, and therefore every idea must be finite, and exclude some part of truth. Every idea, therefore, fails in the end, because it is incomplete; even the mystic's idea of God is incomplete, since God is infinite and above ideas.

It is the same with purpose. All purpose is an idea in action, and all purpose is therefore finite. Now the fulfilment of desire—even the desire for God—is always a satisfac-

¹ These are the half-baked characters and weak-willed types of the great Wessex novels; the "wretched souls, living without praise or blame," whom Dante represents as unworthy either of heaven or hell, and scorned both by Mercy and Justice. (*Inferno*, canto 3). And cf. Blake's remark that men could see more if they chose to see more, and Browning's "Tame in earth's paddock."

² Even in so considerable a man as Huxley this fixed attitude was evident when he refused to discuss psychic phenomena. In earlier years he declared himself ready to accept the most improbable hypothesis provided evidence could be adduced. Later he was unwilling even to consider the evidence. The set idea triumphed over the hitherto receptive intelligence.

And cf. Ruskin in old age: "Of late I read nothing except the Bible, Shakespeare, and a little of myself."

³ This is an actual case recorded by a prison chaplain. I might add another, personally known to me, of a man who took the last Communion, and then made the nurse read the Stock Exchange list aloud to him.

tion and accomplishment of purpose, and the final accomplishment of all purpose ends in death, because the idea for which we live has achieved itself. Thus progress in the long run defeats itself, because inadequate desire attains its insufficient aim ; for neither success nor sacrifice are ultimate measures. Success is merely the ideal within our reach, whereas sacrifice implies an ideal beyond us ; for that reason sacrifice is greater than success.

The suggestion was made above that a dominant mental purpose may possibly reinforce the physical Will to Live, by providing the individual with an additional reason for going on living ; as in the famous case of Bede, who did not die until his translation of the Gospel was complete. If that is so, it should clearly tend to prolong life. I attempted to put this matter to the test of statistics, with somewhat curious results.

The attainment of exceptional success and distinction in a chosen career must, I think, be taken to prove not only the existence of exceptional ability but also of one dominant mental purpose in life. Now the average length of life of men who reach the age of 21—before which it is impossible to distinguish exceptional from ordinary men—was until the twentieth century 62 years in England, where conditions are rather more favourable to long life than in most countries. But a list of 500 exceptionally distinguished and successful men of all countries and ages shows that the average length of such selected lives is 67.5 years.

The manner in which the list was made up may first be related. I wrote down from memory the names of such artists, authors, musicians, philosophers, saints, and scientists as occurred to me, subsequently ascertaining the length of life in each case (and excluding any who died violent or accidental deaths). By contrast with these contemplative pursuits I turned to men of action, and formed a list of soldiers and statesmen ; to these I added the popes and archbishops of Canterbury for the last three hundred years, kings of England and France ; and Lord Chancellors and Speakers of the House of Commons for the last century.

To these again I added travellers, actors, architects, inventors and others not easily classified, as a miscellaneous class.

These totalled altogether about 300, and the average life of the whole worked out at almost exactly the same figure as that of the more restricted miscellaneous class.

In order to test this average, I took the first hundred names in a small biographical dictionary, and added them both to the miscellaneous class and to the general total. In both cases the averages only shifted by a decimal point.

To make the test finally trustworthy, I then added the last hundred names out of the same dictionary. The average length of life for the 500 only differed by a decimal point from the 300 and the 400.

The classified results follow:

The average length of life of ordinary men who have reached maturity is 62 years.

The average of 500 selected lives was 67.538 years.

The average of 191 distinguished men taken alphabetically from a biographical dictionary, was 68.46 years.

The average of 264 selected lives of very eminent men was 69.1 years.

It is clear, therefore that great men on the whole live longer than ordinary men.

Men of Action.—Of these selected men 108 were men of action—soldiers, statesmen, popes, archbishops—and their average of life was 73.8 years.

On the other hand, 125 were men of contemplative pursuits—artists, musicians, authors, saints—and their average of life was 64.3 years.

The man of action therefore lives 9.5 years longer than the contemplative type, but both the active and contemplative type live rather longer than the ordinary man.

I then separated these distinguished men into classes. The average life of men of action is:

Speakers of the House of Commons (7) ..	80.0 years;
Lord Chancellors (15)	79.6 „
Popes (37)	73.9 „

Archbishops of Canterbury (21)	..	..	73.0	years.
Statesmen (14)	..	..	69.2	„
Soldiers (14)	..	..	68.5	„
Ecclesiastics (17)	..	..	68.4	„
English Kings (30)	..	..	57.0	„
French Kings (15)	..	..	47.0	„

In the two latter categories, of course, inclusion is a matter of birth, and therefore largely dependent on family longevity. In all the other classes inclusion is dependent on individual success; the struggle to reach the top must in each case be severe, and sufficient in itself to eliminate men below the average strength and ability.

The men of action, however, do not prove much; for it is evident that exceptional physical strength enabled or at least assisted them to attain eminence, and such exceptional strength is more likely to be found in men derived from healthy and long-lived families than in diseased or tainted stock. And indeed great men of action are a selected class of a selected class. They compete only with their peers; a man is not likely to become Speaker or Prime Minister unless he is stronger than the average member of Parliament, and therefore likely to live long. And in any event such men, and also popes and archbishops, have already reached full middle age before they are appointed.

It may seem curious that Speakers, who of all men must surely sometimes long for death, should head the list; they are far ahead of the great statesmen,¹ as the popes and archbishops are of other great ecclesiastics, who, like Bossuet, Calvin, and Newman, have attained fame but not supreme

¹ An attempted analysis of statesmen into constitutional and revolutionary types was inconclusive, even when the list was considerably lengthened. But here the statistics do not tell the full truth, for the revolutionary is more liable to come to a violent end, and all deaths by violence are, of course, excluded. I regret the failure to reach a definite conclusion, but it provided me with an extremely interesting list of suicides and assassines that includes such great names as Hannibal, Caesar, More, Cromwell, Raleigh, Strafford, Clive, Robespierre, and Castlereagh.

The risks of political life vary so greatly from age to age and country to country that it is impossible to make any satisfactory calculation of the probability of a natural death.

executive rank. But the close coincidence between Speakers and Lord Chancellors, and again between popes and archbishops, is interesting ; and suggests that similar types chosen for very similar offices, will show a marked approximation to each other in length of life.

The Contemplative Type. With the more contemplative type, however, the argument from physical strength is reversed ; for the list includes many men of genius who unwillingly died young, and others whose physique was notoriously inferior. Yet even with these pronounced disadvantages we find that this class averages 64.3 years, as against the 62 years of ordinary men.

But these lists merit further analysis.

The average of the contemplative type is :

Scientists (17)	74.47 years.
Philosophers (16)	66.7 "
Painters (44)	65.7 "
English Authors (25)	62.4 "
Foreign Authors (20)	62.2 "
Musicians (32)	59.5 "
Saints (10)	58.0 "

Again, the very close coincidence of English and foreign authors is impressive and reinforces the assumption that similar types, leading similar lives, will show a marked approximation to each other.

There is a popular idea that poets die young. A subdivision into prose and poetry was therefore attempted, but unfortunately—at least for statistical purposes—many of the greatest authors are famous in both kinds, and were therefore necessarily omitted. On the whole the poets with 59.4 years, were shorter lived than prose writers, with 61 years. It will be seen that they approximate very closely to the musicians with 59.5 years, thus lending incidental support to Wagner's dictum that poetry is the husband, music the wife, among the arts.

The extraordinary longevity of scientists, ranging from

Copernicus to Darwin and Kelvin, is astonishing ;¹ their rivals the philosophers average eight years less. The discrepancy is puzzling, for both classes include men of no great physical strength, and in both cases there is an extreme concentration of the will on abstruse problems, and the same general cast of mind.

At first I could only hazard the conjecture that the slow patience with which the scientist formulates his conclusions, tests, recasts, amplifies, and revises them gave him an advantage over the philosopher, for the latter, having produced his system and perfected it, is unable to prove it, and therefore devoid of incentive to further experiment. The scientist never reaches finality, and nature ever mocks him with a deeper riddle still ; the philosopher reaches finality in his own mind and thereafter rests content.

I confess that this explanation failed to satisfy me. Abandoning the figures for the moment, I therefore proceeded to look into the other classes.

But the discrepancy between painters and musicians was in some ways even more puzzling. The two arts frequently run together in families and even in individuals. Painters are often the sons or brothers of musicians and many painters have been good musicians.² All the usual marks of hereditary artistic ability are often in evidence, and this would seem at first sight to promise similar length of life. Yet painters are second only to scientists and philosophers with 65.7, whereas musicians are nearly at the bottom of the list with 59.5 years.

¹ Fellows of the Royal Society have an expectation of life six years above the average for the whole population. Sir Arthur Schuster, *Nature*, 14 March, 1925.

² Gainsborough and Romney were passionately fond of music ; Reynolds was not, but he was deaf. Blake had no knowledge of music, but composed "singularly beautiful tunes." Musicians seem less susceptible to painting, but Wagner loved rich colours, and paid great attention to the scenery of his music-dramas.

Another indication that the faculties are allied was in a case that came under my observation. A child whose maternal ancestry included many talented musicians and painters showed distinct aptitude for painting. In the ordinary course of education she received some music lessons. She showed no particular talent, but volunteered the remark that she saw the musical notes as colours. The visual perception of sound, which is said

The discrepancy naturally made me distrust my lists, which contained only the very greatest names in both arts. I therefore constructed another series in which the first names were included, but supplemented by an equal number of less celebrated but still distinguished artists and composers.

To my astonishment, but also to my satisfaction, the average life of painters only changed from 65.8 to 65.7; while the musicians changed from 58 in the supreme composers to 59.5 in a more eclectic list—thus indicating that the higher the genius of the musician, the shorter tends to be his life.

These facts seemed to prove clearly that the figures were trustworthy, and possessed a real meaning of which I was entirely ignorant. Some deep but unsuspected cause obviously gives the painter a longer life than the musician.

The first, and indeed the most obvious explanation that suggested itself was that musicians as a class are more precocious than painters, and the fruit which ripens early is likely to fall early. An examination of the biographies of musicians seemed to indicate that this might be a real cause. It is significant that Wagner, who developed later than most musicians, also lived longer than the average; while Beethoven, who found music lessons tedious at first and always composed slowly and with difficulty, lived longer than Mozart, Schubert, Schumann, Chopin and Weber, who were extraordinarily facile, and all of whom were dead by 46.

On the other hand, many musical executants are as precocious as the composers—the infant prodigy at the piano or the fiddle is notorious—yet the executants show many instances of respectable longevity. The shortness of life applies only to composers; it is therefore evident that Galton's suggestion, that the excitement, applause, and irregularity of public life account for the mortality among musicians is not a valid explanation. Indeed a list of great actors that I compiled for the express purpose of testing this theory by another but similar class of public

to be not unusual, probably indicates a common ancestry of music and painting, with the latter art dominant in the individual.

entertainers exposed to very much the same conditions, indicates that actors, with 69.8 years, are a rather long-lived class.

The actual work of musical composition is probably not in the least harmful; the popular opinion that mental labour is in itself pernicious to health has no support in fact, and seems due to a combination of intellectual sloth and jealousy of superior ability among the vulgar. It is true that Schubert remarked that "my productions in music are from the understanding, and spring from my sorrow; those only which are the product of pain seem to please the great world most." But Wagner and many others have left it on record that their highest pleasure was to compose; their most ecstatic hours were those in which their genius came to full fruition.

A more adequate explanation of the discrepancy between painters and musicians, is the fact that many musicians have been frail and delicate, whereas painters as a rule are robust and healthy. The musical temperament is also more highly strung than that of the painter; Wagner, for instance, was extraordinarily susceptible to heat and cold, his sense of touch was so delicate that he could only wear silk underclothing, and the discordant noises of a great city were agony to him.

Moreover, nature itself betrays the musician through the too exquisite sensitiveness of his ear. The painter can turn his head away from the ugliness that offends his soul, and close and rest his eye when overstrained. But the musician knows no such relief. It is impossible to exclude sound by day; and even in sleep the ear is alert and on guard. Now it seems evident that this superior susceptibility, and this impossibility of resting the organ on which he most depends, must itself handicap the musician as against his brother artist.¹

¹ Reynolds lost his sight through overstrain of the eyes, but lived some time longer. Schumann, on the other hand, complained of overstrained ear—"I lost every melody as soon as I conceived it; my mental ear was overstrained . . . I hear an incessant A"—and died soon after. A post-mortem showed brain disease.

But again this did not strike me as a complete explanation, and I turned to the last and—at least in connection with the will to live—the most interesting class in my collection, the great saints.

The saint is the supreme example of the will to live, since he wants to live for ever. Unluckily for our purpose, however, his desire is for the immortality of the soul not the body, and this ultimate aim escapes our statistical measure altogether.

But the saint despises this present life ; death is to him but the gate of everlasting life. Now I suppose that most religious people profess to adopt, at least do not repudiate, this attitude ; even prosperous and comfortable folk sometimes assume the pose that death is a relief from sufferings by no means patent to the onlooker. After all, there is such a thing as humbug in this naughty world ; and the fact that the clergy are notoriously a long lived race does not suggest any undue impatience to exchange the sorrows of this present existence for the joys of paradise.

The great saint, however, is unquestionably sincere ; if one cannot believe his professions one cannot believe anything. He despises life, and has given his proofs that he despises it. Now if it is the fact that a strong will to live has some effect in prolonging life, then it is clear that the saint, who looks on death as a deliverance, will hardly live so long as less exalted folk. And the figures for ten of the greatest saints in the Christian calendar show that the average life of this class is 58 years—less than any other category of great men.

There is to me something very impressive in these figures.

But it will be suggested, of course, that the excessive austerities of the contemplative directly shorten his life. To test this argument, I looked into the records of asceticism ; but I am bound to admit that I found many instances of ordinary, and some of extreme longevity. It is impossible to tabulate the figures satisfactorily, but I derived the general impression that asceticism is by no means pre-

judicial to long life. It is certainly less harmful than indulgence.¹

Again, it will be argued that the saint is naturally of a weakly constitution, and that piety may be a consequence, not a cause, of defective health. In many cases this is true; nobody, for instance, can read Wesley's *Journal* without noticing the sickliness of many of his converts. But the saints in my list were, in most cases, extraordinarily robust. The reproach of physical weakness cannot be brought against men like St. Augustine, St. Bernard, St. Dominic, St. Ignatius, or a woman like St. Teresa. St. Francis of Assisi was, at least as a young man, devoted to pleasure, which hardly suggests any bodily defect. St. Francis of Sales, the perfect type of Christian saint, objected to austerities, and was physically quite normal. St. Philip Neri suffered from a grave internal complaint, but he lived to eighty. St. Thomas Aquinas, it is true, may have overtaxed his constitution by excessive mental labour and frequent travelling, but the fact that he was able to combine the active with the contemplative life does not suggest any inherent weakness. St. Catherine of Siena is the only one of the company of really defective physique.

It is clear, then, that the saint can hardly be explained on this score. But in order to check my table, as in the case of painters and musicians, I constructed a supplementary list of mystics—less famous men of secondary rank, which however included such great names as Bonaventura, Ruysbroeck, Molinos, and Boehme. The ten supreme mystics averaged 58 years; the total of thirty-three from the two combined lists averaged 61.3 years; the supplementary list of twenty-three of secondary rank averaged 62.8 years. The greater the mystic, then, the shorter the life.

And I am therefore driven to the conclusion that the

¹ On the other hand, it is significant that Waddell (*Lhasa*) reports that the sorcerers of Tibet were said to be short-lived. Saints are not sorcerers, but both are subject to visions and ecstasies; and it was to the ecstasies of the sorcerers that the shortness of their life was attributed. The exhaustion produced by ecstasy is discussed in Chapter 6, Section 4.

shortness of his days is due to his expressed will not to live—at least, not to live in this dimension. “I can no longer live on in this life,” said St. Catherine of Siena, “because I feel as though I were in it like a cork under water.”¹

There is, however, another consideration that I put forward with more hesitation.

Scientists and philosophers are of much the same mental cast, yet scientists live much longer than philosophers. Painters and musicians have much the same artistic temperament, yet painters live much longer than musicians. Great ecclesiastics and great saints belong to the same profession, yet the ecclesiastics live much longer than the saints. It seems obvious that some common factor unites the scientists, painters, and ecclesiastics, and differentiates them from philosophers, musicians, poets, and saints.

I must admit that a consideration which slowly forced itself upon me seemed at first fantastic and far-fetched. But after careful study of the available biographical material, which is immense, the mass of evidence in favour of the hypothesis very greatly outweighed the evidence against it, and I can no longer refuse at least partial validity to the conclusion.

The scientist is busied with this concrete and phenomenal world ; the philosopher occupied with abstract and ultimate values.

The painter is engaged with this concrete and visible world ; the musician with the invisible and more spiritual medium of sound.

The great ecclesiastic, like the great statesman, is engaged with the administration of a concrete and actual institu-

¹ Blake has perfectly expressed this mystical longing for death.

“ The door of death is made of gold
That mortal eyes cannot behold ;
But when the mortal eyes are closed,
And cold and pale the limbs reposed,
The soul awakes, and, wandering, sees
In her mild hand the golden keys ;
The grave is heaven’s golden gate
And rich and poor around it wait.”

tion ; the saint, on the other hand, is busied with ultimate and spiritual concerns.

In other words, the longer-lived in each class is occupied with the more temporal and material aspects of things ; the shorter-lived with the more eternal and spiritual values. Now it is at least an extraordinary coincidence, if it is no more, that these habitual occupations of the mind are in each case reflected in the length of days of the greatest exemplars of their respective classes.

Life builds its little bridge in time across the eternal. And it seems that those who are more occupied with the visible things of time stay longer on the bridge, while those who contemplate the unseen world on which the seen depends come sooner to the journey's end. Insensibly the eternal draws its children to itself from the realm of space and time.

APPENDIX TO SECTION 4

I ADD the lists of men of action and contemplatives on which the previous arguments were based. But I would say that, here as elsewhere in this book, much additional evidence is omitted from lack of space. When evidence has told against my conclusions I have mentioned it ; when it merely reinforces the argument I have not thought it necessary to print it.

The lists were in no sense selected to prove a case ; some of the results surprised me. In very few instances did I know the length of life before I looked it up.

STATESMEN—14

	years		years
Bismarck	83	Mazarin	59
Burke	67	Pitt	47
Chatham	70	Rhodes	50
Disraeli	76	Richelieu	57
Fox	57	Salisbury	73
Garibaldi	75		
Gladstone	89	Total	969
Harcourt	74		
Kossuth	92	Average... ..	69.2

SOLDIERS—14

	years
Alexander ...	33
Bernadotte ...	80
Blucher ...	77
Charles of Sweden ...	38
Cromwell ...	59
Eugene ...	73
Frederick the Great ...	74
Grant ...	63
Marlborough ...	72
Moltke ...	91
Napoleon ...	52
Roberts ...	82
Soult ...	82
Wellington ...	83
Total ...	959
Average ...	68.5

ECCLESIASTICS—17

Baxter ...	76
Bossuet ...	77
Calvin ...	63
Colet ...	52
Creighton ...	58
Fénelon ...	64
Keble ...	74
Liddon ...	61
Luther ...	55
Manning ...	84
Milman ...	77
Newman ...	89
Paley ...	62
Pusey ...	82
J. Taylor ...	54
Westcott ...	76
Wyclif ...	60
Total ...	1,164
Average ...	68.4

SCIENTISTS—17

Buffon ...	81
Copernicus ...	70
Darwin ...	73
Davy ...	53
Faraday ...	76
Galileo ...	78
Herschel ...	84
Hooker ...	94
Huxley ...	70
Kelvin ...	83
Kepler ...	59
Laplace ...	78
Linnaeus ...	71
Newton ...	80

years

Pasteur ...	73
Tyndal ...	73
A. R. Wallace ...	90
Total ...	1,266
Average ...	74.47

SUB-DIVISION

MEDICAL SCIENTISTS—5

Harvey ...	79
Hunter ...	65
Jenner ...	74
Lister ...	85
Simpson ...	59
Total ...	362
Average ...	72.4

PHILOSOPHERS—16

Aristotle ...	63
Bacon ...	65
Berkeley ...	68
Butler ...	60
Descartes ...	54
Epicurus ...	72
Fichte ...	52
Hegel ...	61
Hobbes ...	91
Hume ...	65
Kant ...	80
Leibnitz ...	70
J. S. Mill ...	67
Schopenhauer ...	72
Spencer ...	83
Spinoza ...	45
Total ...	1,068
Average ...	66.7

PAINTERS—44

Botticelli ...	63
Burne Jones ...	65
Claude ...	82
Constable ...	61
Corot ...	79
Correggio ...	40
Crome ...	52
Cuyp ...	71
Da Vinci ...	57
Durer ...	57
Flaxman ...	71
F. Angelico ...	68
Gainsborough ...	61

	years
Goya	82
Greuze	80
Hals	82
Hobbema	71
Hogarth	67
Holbein	46
Hoppner	52
Humphrey	66
Landseer	71
Lawrence	61
M. Angelo	89
Millais	67
Millet	64
Murillo	64
Perugino	77
Rafael	37
Rembrandt	62
Reynolds	69
Rossetti	34
Romney	68
Rubens	63
Tintoretto	82
Titian	99
Turner	76
Vandyke	42
Velasquez	61
Veronese	60
Watteau	37
Watts	87
West	82
Whistler	69
Total	2,984
Average	65.7

ENGLISH AUTHORS—25

Addison	48
Browning	77
Burns	37
Carlyle	86
Coleridge	62
Dickens	58
Dryden	69
Gibbon	57
Goldsmith	46
Johnson	75
Keats	25
Longfellow	77
Macaulay	59
Meredith	81
Milton	66
Pope	56
Scott	61
Shakespeare	52

	years
Sheridan	65
Stevenson	44
Swift	78
Tennyson	83
Thackeray	52
Trollope	67
Wordsworth	80
Total	1,561
Average	62.4

FOREIGN AUTHORS—20

Ariosto	58
Balzac	51
Camoens	55
Cervantes	69
Chateaubriand	80
Corneille	78
Dante	56
Goethe	83
Heine	57
Hugo	83
Lessing	52
Moliere	51
Montaigne	59
Pascal	39
Rabelais	50
Racine	60
Schiller	46
Tasso	51
Tolstoi	82
Voltaire	84
Total	1,244
Average	62.2

SUB-DIVISION

HISTORIANS—10

Bancroft	91
Carlyle	86
Gibbon	57
Hallam	82
Lecky	65
Livy	47
Macaulay	59
Prescott	63
Thiers	80
Thucydides	70
Total	700
Average	70

SUB-DIVISION			ACTORS—8			years
NOVELISTS—12						
		years	Bernhard	...	...	76
J. Austen	...	42	Foote	...	...	57
Balzac	...	51	Garrick	...	...	62
Cervantes	...	69	Irving	...	...	67
G. Eliot	...	61	Kemble	...	...	64
Dickens	...	58	F. Kemble	...	...	83
Dumas	...	67	Mrs. Siddons	...	...	76
Hugo	...	83	Toole	...	...	74
Le Sage	...	79				—
Meredith	...	81	Total	...	...	559
Scott	...	61	Average	...	...	69.8
Thackeray	...	52				
Trollope	...	67				
		—				
Total	...	771	SAINTS—10			
Average	...	64.25	Augustine	...	...	76
			Bernard	...	...	62
MUSICIANS—32			Catherine of Siena	...	...	33
Bach	...	65	Dominic	...	...	51
Balfe	...	62	Francis of Assisi	...	...	44
Beethoven	...	57	Francis of Sales	...	...	55
Bennett	...	59	Ignatius	...	...	65
Berlioz	...	66	Philip Neri	...	...	80
Brahms	...	64	Teresa	...	...	67
Chopin	...	40	Thomas Aquinas	...	...	47
Coleridge-Taylor	...	37				—
Donnizetti	...	50	Total	...	...	580
Dvorak	...	63	Average	...	...	58
Gounod	...	75				
Grieg	...	66	SUB-DIVISION OF			
Handel	...	74	ARCHITECTS			
Haydn	...	77	Adam	...	...	64
Lizst	...	75	Blomfield	...	...	70
Mendelssohn	...	38	I. Jones	...	...	80
Meyerbeer	...	73	Nash	...	...	83
Mozart	...	35	J. L. Pearson	...	...	80
Palestrina	...	70	G. Scott	...	...	67
Purcell	...	37	Vanbrugh	...	...	62
Rossini	...	76	C. Wren	...	...	91
Rubinstein	...	65				—
Schubert	...	31	Total	...	...	597
Schumann	...	46	Average	...	...	74.1
Spohr	...	75				
Strauss, J., Sen.	...	45	SUB-DIVISION OF			
Strauss, J., Junr.	...	74	SCHOLARS			
Sullivan	...	58	Bentley	...	...	80
Tschaikowsky	...	53	E. C. Brewer	...	...	87
Verdi	...	88	Cruden	...	...	69
Wagner	...	70	Erasmus	...	...	71
Weber	...	40	Jebb	...	...	64
		—	Jowett	...	...	76
Total	...	1,904	M. Müller	...	...	77
Average	...	59.5	L. Murray	...	...	81
			Parr	...	...	78
			Porson	...	...	49

	years		years
Selden	70	Reuter	83
Scaliger	64	Siemens	60
Scaliger, Jnr.	69	Strathcona	94
Sumner	42		
Ussher	75	Total	1,088
Webster, N.	85	Average	72.5
Total	1,137		
Average	71		

SUB-DIVISION OF SAILORS			
Beresford ... ..	...	...	73
Blake ... ..	...	...	59
Collingwood ... ..	...	...	60
Fisher ... ..	...	...	79
Fitzroy ... ..	...	...	60
Frobisher ... ..	...	...	59
Howe ... ..	...	...	73
Parry ... ..	...	...	65
Rodney ... ..	...	...	74
Rooke ... ..	...	...	59
John Ross... ..	...	...	74
James Ross ... ..	...	...	62
St. Vincent ... ..	...	...	89
Total ... ..	...	...	886
Average ... ..	...	...	68.15

SUB-DIVISION OF MERCHANTS, CAPITALISTS, ORGANISERS			
Airdale ... ..	...	...	76
Bessemer ... ..	...	...	85
Carnegie ... ..	...	...	84
Cunard ... ..	...	...	78
Currie, D. ... ..	...	...	84
Goodyear ... ..	...	...	60
Howe, E. ... ..	...	...	48
Inverclyde ... ..	...	...	73
Jones, Sir A. ... ..	...	...	63
Mackay, J. W. ... ..	...	...	72
Paterson, W. ... ..	...	...	54
Peabody ... ..	...	...	74

NOTE.—This list contains, very naturally, a large number of Scots. But the Scots are a hardy race ; the average life of 7 Scots in the above list is 76.7 years.

On the other hand, if we add the five Rothschilds in the D.N.B., who are members of a short-lived race (the average life of the five is 62.2 years), the average life of 20 successful business men is 69.9 years. I am inclined to think this is a truer average. It corresponds very closely with the average age at death in the *Times* obituary column.

SECTION 5.—AN ANALYSIS OF GENIUS.

THE problem of genius may be shortly stated. It is the exception, at least the apparent exception, to the ordinary rule of continuity.

There is seldom any marked difference between the mental capacity of parents and their children. Heredity being what it is, the talented parent generally produces the talented child, the commonplace parent the commonplace child, and the degenerate parent the degenerate child.

Environment will affect all these classes. But the talented child is likely to grow up in more favourable conditions than the commonplace child, and the commonplace child

in more favourable conditions than the degenerate child. Circumstance carries on the work begun by heredity.

But occasionally a man appears, of ordinary ancestry and environment, whose personality or achievement is of so extraordinary a kind, that the world recognises him—perhaps unwillingly—as an exception, respects him and in time accepts him as a leader, follows him and imitates his words and actions, reveres them and remembers them, and remains curious long after he is dead as to the least personal details of his character, opinions, and thoughts. This individual exception to the crowd, this apparent break in the continuity of the mass, is genius.

Sometimes this respect is constrained by force, as in the case of a military conqueror. Or it may be founded on a combination of force and persuasion, as in the case of many statesmen. But genius shows itself still more conspicuously in art, literature, science, philosophy, and religion. And in these fields nothing but a mental persuasion of the assured superiority and consequent authority of genius will secure him recognition by his fellows.

Genius is sometimes hereditary; it would indeed be astonishing if it were not. Galton has compiled a long list of cases which furnish clear evidence that similar temperaments, talents, or achievements, often run in a family; and genius occasionally breaks its own rule of being an exception.

But Galton's catalogue would have been considerably less impressive had he compiled a parallel list of cases in which a single and stupendous genius had suddenly appeared in a commonplace family, amazed his age by the splendour of his gifts, and died leaving either no descendants or merely commonplace children. The second list would have been by far the longer.

Talent Hereditary, Genius Solitary and Sterile.—And, moreover, a comparison between the two lists would have shown that that slight superiority to the normal type which is called talent is generally hereditary; but the greater originality which is called genius, and in which we are

tempted to recognise a qualitative rather than a quantitative difference from ourselves, is as often as not, individual and exceptional.

Heredity alone seems, therefore, an insufficient explanation. It may account for talent and the rather rare cases in which a great father has as great a son ; it is necessarily silent as to the exceptions. In these latter cases neither the parents, nor the brothers and sisters, nor yet the offspring of the genius show anything out of the common ; ancestors and descendants alike are as ordinary as the rest of us. And a comparison of the list which Galton made, with other lists which anybody can make for himself by writing down the very conspicuous names that Galton has omitted, seems to warrant a rather different conclusion.

Normal physical and mental ability, like physical and mental deficiency, tends to reproduce itself in the offspring. But the highest genius is usually solitary, exceptional, sterile. It is not anticipated or recognised by the parents, is not reflected in the collaterals, and does not perpetuate itself in the children.

Nor does environment seem at first to supply a more satisfactory explanation. The environment of the genius does not differ from that of his family or thousands of his contemporaries ; at any rate, it cannot be said to differ sufficiently to account for his altogether exceptional achievement.

Here, then, we are confronted with an apparent paradox of biology and psychology. Whatever else such men may be, they are obviously types which depart from the rule of sheer repetition and continuity ; and no discussion of the limits of human faculty would be adequate which occupied itself solely with the mass and omitted the exceptions which leaven the mass, and at least seem to transcend those normal limits.

Some Men of Genius.—The ancestry of Joan of Arc, Wolsey, Luther, Cromwell, Clive, Hastings, Nelson, Washington, Wesley, Lincoln, Bismarck, Disraeli, Gladstone, Rhodes, Lenin, Mussolini and many others who have left

a permanent mark on history contains nothing remarkable to distinguish it from their contemporaries; nor, among those who had children, was their genius transmitted to descendants. The soldier and statesmen necessarily depend on environment for opportunity, but the greatest in this class have owed no more to ancestry than the most ordinary of their kind.

In the contemplative walks of life, the scientific temperament appears more likely to be transmitted than the philosophical; at least there are many instances of hereditary distinction among scientific men—Linnaeus, the Darwins, Herschels and Huxleys are familiar cases in point—but it would be difficult to discover any notable case of heredity among philosophers.

Music and art, on the other hand, frequently run in a family; and the two gifts are often combined in the same family, some of whose members will be talented painters and others musicians, although the same individual will not generally show proficiency or perhaps even inclination for both.¹

Music offers particularly good examples of hereditary talent. The Bachs are the classic case of a great musical family, with one splendid genius overtopping ancestors and collaterals alike. Mozart, Mendelssohn, and Strauss, also came of musical families. There was more than one musician among the Beethovens. And there is evidence of musical ability in the ancestry of Haydn, Schubert, Brahms, and Sullivan.

But the exceptions are at least equally numerous. Handel's parents intended him for the law. Schumann's father was a publisher—it is true that the musician was also a capable journalist—and his mother disliked music and objected to her son's choice of a profession. Berlioz was the son of a physician who opposed music as a career. Dvorak was the son of a butcher. Wagner's family were interested in the drama but not in music; heredity is here seen to play

¹ Romney was doubtful whether to be a painter or musician. Herkomer, a capable musician as well as a talented painter, inherited art from his father, music from his mother.

a part, but hardly a dominant part in his career. Debussy had no musical ancestry.

Talent descends from father to son, but the great musical genius seldom transmits his gifts. Schumann and his wife, for instance, were both superb musicians; their children were undistinguished. The same is true of the offspring of Wagner, who married the daughter of Liszt. The only instance in music of a great father begetting as great a son was that of Strauss, and these are hardly examples of supreme achievement.

Painting exhibits the same parallels and exceptions. Paolo Veronese, the Van Eycks, Murillo, Tintoretto, and the mighty Titian came of artistic stock; the Holbeins are a celebrated (and very exceptional) case of a famous father and more famous son. Gainsborough's mother was an amateur painter.

But Michel Angelo, Rafael, Leonardo da Vinci, Velasquez, Rembrandt, Rubens, Reynolds,¹ Romney, and many other artists whose greatness cannot be denied were solitary and exceptional. Velasquez was intended for the law; Constable, like Rembrandt, was the son of a miller—and he declared that he and Rembrandt were the only artists who could draw a mill correctly.

In literature the solitude of the supreme genius is far more conspicuous. Few great writers come of literary or even scholarly stock,² and in hardly any case has the gift been transmitted from a great father to a great son.

The Tennyson brothers are one of few instances of several poets in a family, but their ancestry was not poetical, and the Laureate's sons have composed nothing.³ Scott,

¹ Reynolds drew pictures as a child. On one of these his father wrote "This is drawn by Joshua in school out of pure idleness."

² Dean Inge has pointed out that scholarship is often hereditary. This may be partly due to direct transmission of tastes, partly to domestic environment and imitation. But the parallel between scholarship and literature is to some extent illusory. The scholar or student is appreciative, critical, but not necessarily creative; the great writer is directly creative.

³ One son was a colonial governor; a grandson a well-known cricketer—a game to which the poet devoted two lines of verse which contained three mistakes of fact.

Dickens, Balzac, Moliere, Cervantes, Dante, and Milton had neither literary ancestry nor descent.

The idealist poet and revolutionary Shelley came of a line of Sussex squires, the least idealist and poetical, and perhaps the most conservative class of men in existence. His mother was a facile letter-writer, but that acquirement was common to the time, and has no necessary connection with poetry. The parents of Keats were humble folk with no indications whatever of particular ability, let alone talent or genius. And the child of a provincial tradesman and his wife was one William Shakespeare. There were other children of the marriage, and the dramatist himself had children, but his brothers and descendants remained obscure.

The religious, like the musical temperament, is frequently inherited, or possibly in some cases it is acquired in very early years from parental example. It would be strange indeed if this particular attitude of mind were not sometimes directly transmitted or imitatively adopted at an impressionable time of life, but the evidence suggests that this is by no means necessarily decisive. The mere imitator may be sincerely pious in his youth, and a backslider at adolescence; while the truly religious type may only discover its vocation as an adult. Religious, like other genius, may be rooted, and even flourish best, in the most unpromising soil.

Among the supreme forms of religious genius, St. Bernard and St. Dominic came of saintly families, and it is significant that in neither case were there any of those doubts and struggles of the soul with itself which give the psychologist a peculiar interest in the history of faith.¹ St. Augustine and St. Francis of Sales both had pious mothers whose influence was considerable and perhaps decisive.

On the other hand, the ancestry and early environment of

¹ St. Dominic was dedicated to God before he was born and is said (if we can believe his biographers) to have shown his piety in his cradle.

The Hausas of West Africa have a rather similar story of a child born after the death of his mother. He cried in the grave, was taken out, and the chief of the tribe declared him a servant of God. The infant, more precocious even than Dominic, began to read the Koran at once without instruction.

THE LIMITS OF HUMAN FACULTY

St. Francis of Assisi, St. Thomas Aquinas, St. Philip Ne¹ and St. Ignatius were distinctly worldly, and there is no indication that either St. Catherine of Siena or St. Teresa came of religious stock. Neither the ancestry nor early environment of Buddha or Mohammed were remarkable for piety.

But incomparably the most memorable example of religious genius is the sublime and pathetic personality of Jesus, the lonely and majestic Christ—the son of a carpenter and a peasant.¹

Definitions of Genius.—It is not surprising that these supreme manifestations of human personality should have provoked attention, enquiry, and explanation. There have been many attempts to define genius, often misleading and mostly jejune.

It has been described as an infinite capacity for taking pains, which is by no means always the case ; as a form of degeneracy or madness, which it hardly ever is ; as a danger to the peace of the community, which is often true, but certainly not the full truth ; and as an inspiration or revelation from another world, which merely begs the whole question. This last definition, it is true, in some sort attempts to describe an aspect of the fact, but it in no way explains the process.

Genius obviously transcends all other forms of personality ; and the theory has been advanced—and in matters of religion largely accepted—that some manifestations of genius are so exceptional in themselves, and so tremendous in scope and consequence, that in these cases, if no others, the ordinary laws of nature have been superseded, or deliberately set aside by a higher power. If this hypothesis were correct it would ultimately raise more difficulties than it solves ; but a bewildering variety of

¹ It was possibly the feeling that so stupendous a genius could not spring from so lowly a source that led to the doctrine of the Virgin Birth. Something of this feeling is expressed in the exclamation, "Is not this the carpenter's son ?" But the doctrine of the Virgin Birth would make the recorded genealogy in St. Matthew, where the descent of Christ is traced through Joseph, quite meaningless.

supplementary and alternative explanations has in fact been offered. The special favour (or disfavour) of Providence, direct revelation by a superior spirit, possession or even propagation by an angel¹ or devil,² the reincarnation of some great figure of the past—all these theories have been advanced to account for the sudden appearance of genius. At least these contradictory assumptions serve to indicate the universal sense of its wholly exceptional character.³

It is true that, if all else fails, we may be driven to take one of these astonishing theories as a possible (though hardly a probable) solution. But the acceptance of any one of them would involve so complete a reversal of the biological and psychological evidence we have so far accumulated; and would necessitate so grave a disturbance of the philosophical attitude we have hitherto found tolerable and consistent with the facts as at present ascertained, that we are compelled to look somewhat closely at this matter.

¹ The opinion was once seriously held that the Virgin Mary conceived through the ear when the angel spoke to her.

² There was a tradition among the orthodox that Satan, for his own purpose, disguised himself as a man, and deceived the mother of the future philosopher on the night she conceived Voltaire.

³ I attacked this problem of the appearance of genius from every angle that occurred to me, and naturally accumulated a mass of interesting but often irrelevant evidence.

There are various superstitions as to first sons, and third, seventh, and thirteenth sons, and I therefore investigated the place of genius in the family series. Of 31 great men chosen entirely at random, 11 were first children, 7 second, 2 third, 2 fourth, 4 fifth, 0 sixth, 2 seventh, and one each eighth, ninth, and tenth children. The preponderance of the first three (20 out of 31) merely indicates that not many families have more than three sons. Many names originally selected had to be omitted owing to uncertainty as to the place in the family series, but the list is long enough to demonstrate that this particular road leads nowhere.

The actual list may be of interest. First sons: Dryden, Burns, Byron, Shelley, Keats, Macaulay, Thackeray, Lizst, Hogarth, Swift, Swinburne, Second sons: Dickens, Wordsworth, Constable, Romney, Hume, Mendelssohn, Handel. Third: Shakespeare, Collins. Fourth: Rembrandt, Tennyson. Fifth: Darwin, Goldsmith, Gray, Schumann. Seventh: Vandyk, Reynolds. Eighth: Bishop Butler. Ninth: Gainsborough. Tenth: Coleridge.

Two friends of mine are thirteenth children; if superstition went for anything, they should be able to blast with a look, foresee the crack of doom, and commune with dead witches. In fact, one commanded the British Third Army during the war; the other is a blameless and kindly librarian.

Triple Cause of Genius.—I submit that there are three main elements which distinguish the man of genius from the average of human beings.

1. A concentrated and unified will, which fuses the whole personality with one mastering idea.

2. The faculty of expression.

3. The faculty of super-normal or extra-perception.

Of these the first is generally necessary to effect fruition. The second must be present in greater or less degree, or genius will not obtain recognition. The third element must always be present, or there will be nothing to distinguish the exceptional from the ordinary man, and genius will not exist at all.

The first and second factors, although requisite to the use of genius, are also present in full strength among many who have no claim whatever to the title ; and they are therefore not peculiar to genius. But wherever the third exists, genius exists ; although it may not find expression, or its fruition may be frustrated. The faculty of super-normal or extra-perception is therefore the essential element of genius.

We will consider these several factors separately.

1. *The Concentrated Will.*—Every man is an integer of will. But with most men this is confined to the Will to Live and its necessary consequence, Desire, which ensures the continuity of the stock. Beyond these essential physical elements and their direct mental derivatives, the existence of concentrated mental Purpose is on the whole rather exceptional. Intellectual interest is either local and superficial or scattered, diffuse, and spasmodic ; in neither case does it achieve, or attempt to achieve, anything much out of the ordinary.

The concentrated mental Purpose which separates the ambitious or exceptional man from the ruck of humanity is always the result of an idea—an obsession by one particular idea which infuses and controls and, as it were, floods the entire personality with the desire of one particular achievement. It is of no consequence whether the idea be good or bad, commonplace or exceptional, lofty or debased ;

the essential fact about the concentrated will is that the idea controls and directs the individual, not the individual the idea.

In this respect men of genius are no different from others of their kind. A great poet is animated by the idea of a great epic, the great scientist by the hope of some fundamental discovery, the great religious by the desire of seeing God. But the great speculator will be equally obsessed by the idea of cornering wheat, and the great merchant by the idea of becoming a millionaire. The miser, like the mystic, is in the grip of an idea ; each is the servant of his own child. In each case ambition follows a star ; but the star may ride high or low in the firmament of value, and the will to attain it be the same.

Concentrated mental purpose therefore follows and obeys the fixed and dominant idea, not the idea the will ; in that sense it is a consequence, not a cause. Where there is no dominant idea there is no concentration of purpose ; but once the potent idea is conceived and takes possession all this is changed. The idea concentrates and fuses the scattered interests of the individual into a unified mental purpose, the individual now spends his energies to the utmost in pursuit of his desire, and the whole of his resources are devoted to its fulfilment.

All men above the animal level have an ideal that may only occasionally become real, but to the man possessed and dominated the ideal is the only permanent reality. His choice and his selection are clear and sharply defined ; he knows that other things exist, but nothing else exists—for him. He denies himself and sacrifices himself for the sake of his idea, because it is only through the idea that he can fulfil himself. To others it may seem that he counts the world well lost for the idea, but in fact it is not so. The world for him is his idea.

This is the stuff of which the fanatic and the successful man are built ; every successful man has a touch of the fanatic in his composition. Each concentrates his mind on one subject, and leaves all else alone. The genius also must

have this concentration of purpose, but he must have something more. Without the will to sacrifice everything to one end, to labour steadfastly until that end is attained, little will be done ; but the will to labour alone will of itself produce little.

2. *The Faculty of Expression.*—It is necessary for the genius to express himself, or he will achieve no more than the village Hampden or the mute inglorious Milton of the *Elegy* ; and the more perfectly he expresses himself the more resplendent will his genius shine. Indeed the sheer beauty of form and style is seldom achieved without a touch of genius ; expression seems at times a kind of genius in itself.

Expression—which is at bottom always an explosion or extrusion of superfluous energy—must have been extraordinarily difficult in the infancy of the race ; and it is still demonstrably difficult, and at best largely symbolic, in the more unfrequented and abstract regions of thought. But use and wont have made it relatively easy on the ordinary levels, and the distinction between genius and expression is therefore real. Mere expression by itself is little ; it is the experience behind the expression that counts.

And as if to emphasise the difference, there are the crowds of fluent orators and facile poets who have expression in abundance, but betray no spark of the divine fire. Many of these authors can be read with pleasure, for they conduct us along a known and well-trodden path with ease and grace ; and some are so excellent in form that the real shallowness of most of their work is often overlooked. Pope and Byron and perhaps Swinburne are the outstanding examples among the poets, and Cicero among the rhetoricians ; and there are moments, particularly after reading the sad majesty of Virgil, when even the beloved Horace seems to fall into this secondary rank—a companion, indeed, among the familiar plains, but hardly a guide for the lonely heights.

Evidently, then, neither concentration of will nor facility

of expression necessarily make the genius. The world is full of men who have the will to do great deeds but can accomplish nothing; of poets whose epics nobody can read, painters whose pictures have no relation to art, dramatists whose lightest comedies are heavier than many a tragedy, and novelists whose only magic is to cure insomnia. Here may be industry and misapplied ability, but genius is far from them.

3. *The Faculty of Extra-Perception.*—It is the third quality, of super-normal or extra-perception, that makes the genius, and distinguishes him from the rest of his kind.

Genius shows itself in many forms, but always at bottom it possesses a super-normal faculty of perception, which may or may not be allied with a super-normal faculty of expression or execution. If it is not so allied, the genius will live and die unknown; if it is so allied, and circumstances are favourable, another triumph may be added to the achievements of humanity.

It is this capacity of additional perception which gives genius the originality that marks it out from the ordered repetitions of everyday life; and it is precisely because of this originality that it is so often distrusted and suspected of being insane. It represents a break in ordinary continuity.

We others dwell comfortably within the tranquil security of our shut and limited world of normal perception and current understanding, until some revelation of genius comes to disturb or shatter these contingent conventions and the complacent assumptions that are founded on them. There is something a little shocking to our pride in the discovery that we must alter our customary standpoint and revise our habitual opinions, which makes us instinctively resist these changes; but all progress has been built on the work of forgotten genius in the past, which in its time perceived rather more of the nature of things than the ordinary man, and thus enlarged step by step our common conceptions. And everything we call inspiration is in

fact nothing more than additional perception of a hitherto unseen reality, which makes for an increase of individual consciousness within, and is interpreted through the instrument that perceives it.

It is clear that in many ways genius thinks differently, or at least its thought is on a different plane, from that of the ordinary man. But thought rests ultimately on perception; we cannot think unless we have something to think about. And genius must perceive differently before it can think differently, and must perceive more before it can think more.

Always the fundamental fact is therefore neither expression nor execution, but perception. The essential thing about the genius is that he does not, as we ordinary folk do, take this phenomenal world for granted as it seems so obviously to exist, because his faculty of extra-perception forbids him to do so. We all assess a fractional piece of reality, but the genius perceives rather more of reality than his fellows, and therefore interprets a larger world.

The genius of one kind see further than his comrades in politics or war, and if opportunity presents, becomes a master of statecraft or strategy. A second sees a kettle boil, and perceives that power generated by steam may be applied to locomotion. A third sees or hears more in nature than his fellows; if he can express himself, he may become the great poet or painter or musician, who discovers unimagined depths of meaning in the trivial life of everyday. A fourth sees stars and planets move, or an apple fall, as millions of other men have done; but because he realises the strangeness of common things, and does not accept the conventional or orthodox explanation, he becomes a Copernicus or Newton.

In one case the genius, at least its expression, may be more obviously physical, as in the painter's translation of the beauty of the world to canvas. In another, it may be predominantly mental, as in a dialogue of Plato, or some great chain of mathematical reasoning. In a third, it may seem wholly spiritual, as in the mighty call of one

of those great leaders of religion whom men have called inspired.¹

These things depend on the character of the man, and the character of the man depends on his perception of, and response to the external world. But always it is a perception and discovery of things beyond the normal range, an enlargement of this phenomenal world by some new seizure of reality, that stamps the genius and his work. And this very faculty of extra-perception means, at least should mean, increased inspiration and a larger absorption of energy that will accumulate within the individual till it eventually overflows in expression and creative action—that “clean, clear joy which,” according to Kipling, “does not come to man too often, lest he should consider himself the equal of God.”

A Larger Area of Response.—The biological aspect of these assumptions presents few difficulties.

An increased area of response is the basis of all increase of perception and therefore of all understanding. The area of physical response is always larger than the actual field of consciousness, and consciousness again is more inclusive than understanding. We respond to more influences than we are definitely aware of, and it is hardly necessary to add that we are all aware of many more things that we can explain.

There are in human beings (and to a less extent in the

¹ Inspiration is not only religious. Cf. Brahams, on music. “There is no real creating without hard work. That which you would call invention, that is to say a thought, an idea, *it is simply an inspiration from above*, for which I am not responsible, which is no merit of mine. Yet it is a present, a gift, which I ought even to despise until I have made it my own by right of hard work.”

Cf. also Reynolds on painting: “Those who are determined to excel must go to their work, whether willing or unwilling, morning, noon, and night, and they will find it to be no play, but on the contrary very hard work.” But we know that many men work hard, without a spark of genius; and Sir Joshua admits later that “genius begins, not where rules abstractedly end, but where known, vulgar, and trite rules have no longer any place.” In other words, rules are made for the known and familiar, but genius perceives the unknown.

Cf. also Buffon on science: “Genius is patience.” But many men have patience without genius, and Buffon’s fame rests on the new, if fragmentary, perception of a natural order which illuminated his patient researches.

more intelligent animals) innumerable slight individual differences between response to the same stimulus. We say that a person acts upon impulse, and that an artist or musician feels an overpowering impulse to respond to the stimulus of art or music. But strictly speaking we mean no more than that circumstance has supplied the particular stimulus to which that person is peculiarly sensitive.

Obviously there are stimuli which fail to stimulate effectively. A whistle excites a dog, but has no effect on a worm. The proposition *Cogito, ergo sum* induces appropriate reactions in a philosopher, but leaves a peasant unmoved; the peasant, on the other hand, recognises and responds to many things in nature of which the philosopher is generally ignorant. A declaration of personal love will stimulate a woman to acceptance or rejection, but a declaration of love for all mankind will probably leave her cold. In other words, the stimulus must suit the capacity of the instrument, and the instrument the stimulus.

This is evidently the case with genius. The individual mind may be more powerful than that of ordinary men; very often there is no doubt that it is, as the rich variety of Shakespeare, Milton, Leonardo da Vinci, Goethe, Wagner, and many others attests. But very often there is also no doubt that it is not of higher all-round power, but merely an example of power concentrated in one particular direction. The instrument will be extraordinarily sensitive to one particular stimulus, and singularly obtuse to others.

Except among poets, for example, appreciation of music is rare in literary men. Macaulay could hardly distinguish one tune from another; yet he laughed at Johnson as scarcely able to tell the bells of St. Clement's from the organ. And many contemporary writers have confessed, directly or indirectly, their ignorance of music. Yet nobody would deny their ability in their own field.

On the other hand, musicians have not, as a rule, a refined taste in literature. The great author may prefer a popular or sentimental tune to an exquisite harmony. But the great musician may also prefer a sensational or vulgar

piece of current fiction to the finest masterpiece of letters.

Within its own specialised range, in short, the perception of genius may be so exquisitely sensitive as to approach perfection. Beyond that range, it may be incompetent, or commonplace, or blind.

The greater and more catholic types of genius give proof of a mind high above the average, but more usually genius seems to possess a mind much the same as its fellows, but more sensitive to one particular form of stimulus than the ordinary man. The total power of the mental instrument may not differ greatly from that of other men, but it has a faculty of extra-perception in one direction, and the bulk of its energies will naturally be applied in that direction. Mental, like physical energy, follows the beaten track of individual preference and habit.

Some characters, however, are more quickly responsive to stimulus than others, and there is a wide difference between the swift instinctive reaction of one man and the slow deliberate response of another.

These things depend on the subject as well as the object. The shallow nature feels nothing deeply—it may be stirred to its depths, but the very depths are shallow; whereas with another an apparently casual impression, hardly noted at the time, may sink slowly down and take root in some hitherto dormant fragment of personality, which it ultimately stirs into action—action that may quite conceivably be contrary to the apparent or even the real interest of the normally dominant consciousness.

Now genius may be either of the swift intuitive kind or the slow and pensive variety; this is entirely a matter of individual constitution and personal character, not of professional capacity. In literature, Shakespeare and Shelley write with effortless ease, but Dante gives his whole life to a poem which is barely completed at his death; one man seizes occasion on the instant, another broods on an idea for years before he puts pen to paper. It is the same in music; Mozart and Schubert write their music as they

compose it, but Beethoven notes his themes in a pocket-book, and toils painfully over them in his study, while Wagner ponders Parsifal for twenty years before the score is finished.

Again, the effect of even trifling occurrences at moments of great tension may be decisive. The senses are then in an extremely receptive state, and register apparently unimportant or irrelevant facts with extraordinary acuteness and depth. The nerves are taut, the whole mind highly strung; the ego itself expands under the strain. A moment of crisis reveals character. But it also makes character.

Now perception obviously depends on the percipient, and the proverbial irritability of genius indicates that it is more highly strung than the normal man, it lives at higher tension, its sense-impressions are more acute, and it is peculiarly sensitive to and therefore receptive of external influences.¹

Genius therefore feels and sees more than the ordinary man. But especially it will see more, and see more deeply, in one particular direction; and this because it responds naturally to that, particular stimulus, returns to it again and again, dwells upon it, absorbs its essence, and in the end comes to understand it and interpret it as no other man can do. It absorbs more, it contains more, and therefore it expresses more.

The essential fact about the process of genius is expressed in those wise words of Benjamin West to the young Constable: "You must have loved nature very much before you could have painted this."² But the artist did not love nature because he understood it; he understood it

¹ Cf. Wordsworth, *Preface to Lyrical Ballads*: "Poets are men possessed of more than usual organic sensibility." The claim could be made for every artist.

Goethe was abnormally sensitive. Wagner was extraordinarily sensitive to touch—he could wear only silk—and climatic changes and the discordant noise of cities. Apparently Haydn and Buffon were much the same, for both dressed themselves with care when composing. The list could be added to indefinitely.

² Similarly Wu Tao-tza, the Chinese artist excused himself for making no preliminary sketches of his pictures: "I have it all in my heart."

because he loved it, brooded on it, and studied it at first hand. Sympathy was not merely the basis but the building of all his understanding, and his sympathy was founded on a larger perception of its beauty, and a deeper response and absorption of its essence, than falls to the lot of ordinary men.

And this is true of all greatness in art, in science, in literature; it is founded on a larger perception and a deeper response than the normal, it grows increasingly in sympathy with its object, and in the end the whole mind absorbs and is completely coloured by the environment from which it draws its sustenance. It is in fact united with the object of its quest; for all consciousness is the union of the self with the universe—at least with that little portion of the universe which we perceive—and there is truth in Ruysbroek's axiom that "What we are, that we behold; and what we behold, that we are."

Thus permeated, and filled and over-filled with the contemplation of its desire, the beloved stimulus will urge its willing instrument to appropriate action, and genius may then produce its perfect flower. But always the beginning of these things is perception—a perception beyond the ordinary of beauty, or truth, or harmony, in the object that attracts and stimulates.¹

The Increase of Perception.—These exceptional responses of genius seem to include a somewhat wider physical range of colour, or sound, than that of the normal percipient.² It is probable that the artist may actually see or hear things invisible or inaudible to the ordinary eye or ear; and attempt

¹ I have no wish to trench on the dangerous ground of æsthetics, but it seems possible to define very simply the distinction between truth and beauty.

Beauty is the selection we wish to make from perceived reality, ugliness what we wish to exclude. Our consciousness of reality is greater than our desire, and truth greater than our consciousness. It is not the fact that beauty is truth; our standard of beauty is subjective and demands exclusions, whereas truth is objective and universally inclusive.

² These additional physical perceptions demonstrably exist. Sir David Hunter Blair records that the moons of Jupiter were seen with the naked eye by Schon in Breslau, Lord Ormonde in Sicily, Stoddard (a missionary in Persia), Heis, Todd, Mason, Boyd, and Buffham; Webb the astronomer saw them through his eye-glasses.

to translate them, not always successfully, into the recognised scale of current perception.¹

There is nothing astonishing in this hypothesis. The long heritage of ancestral use has given us a certain limited radius of sensory perception, but its precise range is in no way fixed or final or inalterable. Certain of the senses have decayed, and others advanced, in our journey upwards in the scale; and there is no reason to suppose that ultimate stabilisation has been reached.

Indeed, there is every reason to presume that it has not. But if the actual range of the senses is still subject to variation, it is clear that any variation in the direction of enlargement of sensory perception will be precisely of the kind which makes for that faculty of extra-perception which we have defined as the hall-mark of genius.

The evidence here is necessarily fragmentary and often inconclusive, suggestive and indicative of probability rather than demonstrative of fact. Genius is seldom interested in itself as a biological problem, and accordingly it has left us its achievements, but few accounts of the materials on which those achievements are built.

But consciousness depends always on absorption of energy from without, and is restricted to the amount it can absorb. Ultimately it is the differences in response—between the nearly closed and the open and receptive organism—which make differences in consciousness, and a very small addition of energy makes a vast difference in consciousness. It is on these differences that genius is founded.

And, moreover, there can be no doubt that these exceptional responses may be cultivated and increased by the individual who is specially endowed in that direction, who desires to increase them, and perfect himself in the art he has chosen. Education may indeed be unable, as Mon-

¹ Cf. Turner, to the lady who complained she could not see his colours in nature: "Don't you wish you could, madam?" And Whistler; "Nature's creeping up."

In his more subtle violin passages, Wagner also seems to convey the suggestion of a perception beyond the recognised scale of sound. It is impossible to hear them without recalling Keats. "Heard melodies are sweet, but those unheard are sweeter."

taigne admits, to turn a low-grade into a high-grade mind—in the homely English proverb, one cannot make a silk purse out of a sow's ear. But even the ordinary man in a paint factory, engaged day after day in the matching and blending of colours, will educate his eye to discriminate tints of vermillion and other pigments that appear indistinguishable to the uninstructed. And the same is true in higher fields; thus Reynolds, with his usual candour, has confessed that he was at first disappointed with Rafael, but "in a short time a new taste and new perceptions began to dawn in me."¹

But Reynolds was an artist before he saw Rafael; and while the dominant perception can thus be increased and refined, I doubt if it can actually be implanted on barren soil. Here, however, we are at once confronted with a difficulty in the presence of the innumerable tribe who appreciate what they are told to appreciate, and pretend to admire what they are told to admire. A psychological study of humbug would be invaluable in this connection; nor are materials lacking to illustrate the theme.

It is probable, however, that many, perhaps even most of us, have this fringe of extra-perception in greater or less degree, this potential enlargement of ordinary consciousness. It may not be active, and therefore never come to fruition;

¹ This concentration on one phase of perception may leave a definite physical mark. Rafael's head is said to have shown that those portions of the skull in which the optic memories are stored were unusually prominent, and Bach's skull to have shown a peculiar enlargement of the brain about the supra-marginal convolutions. No doubt this is true of other great composers, but unfortunately there is little evidence on the point. If poets and philosophers were to bequeath their heads to the College of Surgeons, they might do a great service to science.

The over-strained organ may collapse under pressure of work: Beethoven became deaf, and Reynolds blind. And Schumann writes that "when ill, I lost every melody as soon as I conceived it—my mental ear was overstrained." Later, when the brain disease from which he died advanced, he "heard an incessant A," and spirit voices and other hallucinations troubled him. Eventually he became insane, as did Donizetti.

But despite popular opinion, insanity is rare in genius. I have found no instance among scientists, painters, or philosophers; and only two—Swift and Cowper—among authors.

It is probably only coincidence that Swinburne, most musical of poets, suffered from increasing and finally almost total deafness in later years, when his best work was already done.

but in some shape or form it does seem generally to exist.¹

But many men ignore, and others fear and altogether reject these fragmentary perceptions ; this form of mental blindness, this timidity and distrust of the novel and unknown, is very common. The average man is frightened of exercising his full power, or putting forward all his strength ; he plays for safety, and safety lies along the beaten road of customary perception. Only genius ventures courageously into these dim uncharted regions which stretch beyond the normal senses, lights them up and explores them with its intensive gaze, and drags them out into the actual sphere of current consciousness.

For that reason original work is likely to be denounced and derided at first, because it involves an enlargement of normal perceptions and a break with tradition and current habit. But once men are accustomed to the new revelation, they will accept it quietly and enpsychicate it in their minds ; and in time the new attitude will itself become a habit and tradition, imitated by innumerable successors and lauded by the crowd.²

¹ Cf. Blake, that strange seer of other worlds, who declares that everybody can see things (visions) if they choose. Not everybody ; some perceptions are naturally sub-normal and deficient, and some heads are very thick.

As an instance, I must admit (to my shame) that pictorial art fails to move me ; there must be some actual blindness of the soul to that form of stimulus, for my physical sight is perfect. Curiously enough, it is not quite total ; for while Velasquez, Rubens, and the great Italians escape me, I can appreciate Rembrandt and Whistler.

There is no actual blindness to the visual beauty of nature, and to its auditive aspect I am perhaps rather exceptionally sensitive ; but I notice that I have less appreciation of flowers, sunsets, and so on than my children whose maternal ancestry is artistic. But this is merely a personal proof of the proposition that the artistic mind sees more in nature than the ordinary mind.

² The question of imitation lies outside the scope of this enquiry, but its existence is evident in every branch of human art. The great poet, architect, or painter, has a new conception, which he carries out with genius ; forthwith it becomes a school, a habit, a tradition. In sheer style the imitator may surpass the founder, but the strength of the original is lacking, because the stimulus of experience is only felt at second-hand, and sooner or later the style itself decays as it becomes less and less spontaneous ; the impulse is worked out, and a new genius with a new idea must arise before that particular art will move forward again. Much good verse was written in eighteenth-century England, but all was re-

It is true that genius does not always see correctly, and the account of the novel world into which he is the first to venture will need confirmation and correction by successors. Moreover, the fact that he may perceive something of the world beyond the normal senses is sometimes counteracted by the fact that he perceives less of the world within the normal range than the ordinary man. He advances, as life always advances, by the method of trial-and-error. But in this respect he is true to all biological antecedent ; genius is a variation from type, and only time and utility can prove whether it is a progressive variation.

Intuition and Imagination.—This faculty of abnormal or extra-perception is often spoken of as intuition ; since it sometimes operates as a sudden (and apparently instantaneous) vision, a realisation and certainty of conviction rather than a gradual intellectual process whose slow and tentative advances are severally weighed and tested in the scale of reason. And it is precisely the possession of this faculty by the mystic and the religious of all the ages which explains their universal distrust of intellect and reason.

They perceive something, at least they are persuaded that they perceive something, which intellect fails to grasp and reason is incapable of weighing. They feel that things are so ; “ their eyes are opened, and they see, their ears are opened, and they hear.”

But feeling, seeing, and hearing are still perception. And if their gift is anything, it is a faculty of extra-perception, the power of seeing something we others cannot see, and knowing something we others should never have known by the ordinary processes of perception and intellection.

miniscent of Pope ; it was not until men turned their back on Pope, and sought inspiration afresh directly from nature, that great poetry was again produced.

Architecture, even more than poetry, has been ruled by tradition and the past. No doubt that is partly because one cannot help seeing buildings, whereas anybody can avoid reading poetry, and imitation has therefore more opportunity. But it is mainly due to the fact that the poet writes to express his own ideas, whereas the architect is bound to express the ideas of other people.

This faculty of extra-perception is also clearly indicated in the authenticated cases of clairvoyance and clairsaudience. Precisely how far this abnormal extension of the perceptions can reach remains, and perhaps must remain, uncertain ; for it is variable and inconstant even among those who possess it. It appears to depend on an occasional excessive subtlety of eye or ear, which can pick up waves of light or sound that escape the normal range of those organs.

There is no doubt that the gift exists. There is also ample evidence that, like every other abnormal functioning of the brain, it is fitful and uncertain in operation. It demands, or at least induces, a different range of consciousness in its possessor ; but it is not under the control of the percipient, and consequently bears the mark of a nascent faculty, which may or may not develop into a regular and constant extension of the normal perceptions in the distant future of the human family. In its present primitive condition it is often confused with, and controlled by the imagination.

Imagination or mental vision is the peculiar prerogative of man, and the greater the man the greater the imagination. This unique faculty always follows the strongest—that is, the most used—channel of personal sensation ;¹ and all imagination is at bottom the perception and seizure by the consciousness of an unseen world, in advance of proof, or independently of proof, of its reality. And this perception is sometimes so dramatic and convincing, and conveys so strong an appearance of life and truth to the beholder, that it overwhelms his rational judgment and convinces him and

¹ The very word Imagination—the faculty of making mental images—is proof of the general dominance of sight over the other senses.

The great story-tellers have always had strong visual imagination ; and, of necessity, painters. Musicians, of course, and many poets, incline to the auditive. Milton, whose love of music was hereditary, has little visual imagination—all his images are vague and blurred—but strong auditive faculties ; it is significant that he became blind. Dante, on the contrary, was strongly visualist. I have sometimes thought that Shakespeare was slightly more auditive than visualist, but I should be sorry to be held to the proof.

It is possible that the proverbial differences between philosophers owe something to this divergence of the senses. The visualist will probably tend towards realism, the auditive to idealism.

others that what may be the mere symbol and creation of his mind has a real existence.

The typical case is that of William Blake, to whom, as to many others, imagination was "the divine vision, not of this world, nor of man, nor from man." In his waking dreams he saw Moses, Elijah, and Shakespeare, and these visions were as real to him as the stupendous scenery of Isaiah to that great poet. "I am really drunk with intellectual vision whenever I take a pencil or graver in my hand," said the mystic artist; invention failed him, when the visions disappeared.

The world has not ratified these particular perceptions, but it has willingly recognised the genius of his imagination; and the highest form of imagination is that in which these creatures of the mind take on, as it were, an independent life of their own, and become real to the creator.

This type of genius sees things usually in dramatic and personal form; and sees them with an assurance and clarity of conviction that equals and perhaps surpasses the grey monotone of truth. The very clearness of his vision and the sharp certainty of his realisation will of itself heighten his power of expression, and liberate the overflowing energy of his soul. His prose may then leap and soar with the rhythmic exaltation of song; or the children begotten of his fancy may be so vividly portrayed that, even in the cold medium of print, they become more real to us than men of flesh and blood.

This is obviously true of great literature. The pedestrian chroniclers of the Middle Ages go unread, but Dante's imaginary picture of another world is familiar to us all. King Henry IV. is dead, but Falstaff lives for ever. The Duke of Wellington is a great name, but Becky Sharp is a real woman. Primitive man is a scientific reconstruction, but the mythical Adam and Eve are recognised in every nursery.

All these characters of the great story-teller come to life through the sheer force of imagination, which makes illusion for the time being more convincing than the truth.

They are real even to their creator ; Dickens has left it on record in his greatest novel that " no one can believe this narrative in the reading more than I believed it in the writing." It is the same in music ; Wagner has given a convincing account of the " remarkable apparition " which moved and spoke to him from the depths of his fancy when he was conceiving the scheme of an opera.¹ And in the religious seer, as we shall find later, this process of realised imagination reaches its utmost maximum of living certainty and conviction ; mysticism is full of visions of saints and angels.

Now all imagination is a form of genius—the perception and appreciation of an unknown world which it may create or people for itself—but all genius is not imagination. It is true that there is a strain of imagination even in the austere theories of science and philosophy and mathematics ; but when the conclusions of the pioneers in these fields are accepted and ratified by others, they rank no longer as imagination, but as anticipation and prevision of the truth.

But in this category of genius it is less the quantity than the quality of the perceptions that differentiates the normal from the super-normal ; it is not so much an enlargement of the physical senses as a deeper penetration by their mental extensions. Genius may sometimes see more of things than the ordinary man, but also it sees deeper into things. The actual message from the external world may be very much the same, but the content of that message will be translated into entirely different language.

One man hears a bird sing, and does not even turn his head. A second looks, and thinks of lark-pie. The third writes an immortal *Ode to the Skylark*. All three perceive the same bird, but the quality of the impression is very different. The physical stimulus may be much the same, but mental perception constructs an essentially different meaning.

The difference between physical and mental perception is extraordinarily difficult to define, and is perhaps as incapable of exact definition as the ancient and illusory attempt to

¹ The passage is quoted in full on page 342.

distinguish between the body and the soul. But it may perhaps be most nearly attained by saying that physical perception registers the thing, and mental perception the meaning of the thing.¹ The one is always concrete, and may therefore be discordant ; the other approaches, if it does not attain, the abstract and harmonic ; and consequently the one is necessarily temporal and transient, the other attempts an approximation to the permanent, and even to the eternal. The greater the genius, the deeper its penetration into reality, and therefore the more nearly it touches the eternal.

The more physical forms of extra-perception are likely to be intuitive and occasional, subject to sudden inspiration and relatively long periods of inaction and exhaustion; the prophets in this kind are proverbially sometimes possessed and sometimes wholly lacking. The more mental form of genius is likely to have no such sudden inspiration. It, too, may have moments of insight and sublime illumination, but it doubts its visions, it has none of the certainty and conviction of the mere physical percipient, it tests and modifies its conclusions by a thousand enquiries and experiments, and comes to an altogether slower fruition. The one is like a lightning flash that stabs night and is gone ; the other is the summer sunshine, that gets more powerful as the day wears on.

The lyric poet sings because he must ; but a Newton discovers the law of gravitation by "incessantly thinking about it." The flight of the one is short and swift ; the other soars into the very heights of heaven, and remains poised upon the wing.

All, or perhaps nearly all of us, are capable at some time and in some degree of this physical and quantitative extra-perception, or the supreme works of genius would be simply unintelligible to us.² Rather fewer, perhaps, can appreciate the abstract and qualitative vision. But these things

¹ Chapter 1.

² Extra-perception is probably frequent, although the overflow of consciousness which we call inspiration is only occasional. Many of these extra-perceptions of the normal man, however, do not succeed in forcing their way into consciousness, and he remains only vaguely aware of them.

reach their superlative point of creative activity only in the genius. His physical perceptions are often singularly more acute than those of his fellows, but the higher level of his mental energy attaches to every quantitative physical observation a qualitative value beyond the common range. Of such stuff is inspiration made; from this excess and overflow of experience derives the heightened consciousness which produces the supreme achievements of expression and style.

Genius an upward variation of the Normal Type.—It appears therefore that genius is really an upward variation of the normal human type, and must in consequence be regarded as a continuation of the tendency to progressive variation in living nature. And it seems to follow that potential genius of one kind or another, although always exceptional, is probably by no means so rare as some have supposed.

It is perhaps the saddest thought in life that so few fulfil their early promise. Potential ability is not necessarily matched with opportunity, without which certain types of genius must be sterile; ¹ nor is it always combined with the strong will that can create or master opportunity.²

Further, it is sometimes divorced from the lower, and perhaps distinct, faculty of self-expression. It is probably the fact that all intense emotion seeks expression, and the more intense the emotion the more intense as a rule will be the need of expression, because it fills the organism to overflowing. But there are a sufficient number of exceptions to make one hesitate.³

¹ At least in politics and war this seems to be true. No man can be a statesman without some sort of State—the oak cannot grow to any size in a pot. George Washington must have remained an obscure colonial proprietor had he been born fifty years earlier, and Napoleon would hardly have been more than a distinguished general in the armies of Louis XIV.

It has been said that great men appear at a time of crisis. But this is as absurd a reversal as the old saying that kindly providence placed a river wherever man put a town. A time of crisis is the opportunity for great men to appear: they exist at other times, but circumstances are unfavourable to their development. Stimulus is necessary to bring great gifts to full fruition, and the greater stimulus should produce the greater man.

² It is said, for instance, that Weber had the genius, but lacked the indomitable will, of Wagner. "Weber died of trying to become Wagner."

³ Pater seems inclined to join perception and expression. "In its

Blake is an instance of genius of very considerable extra-perception, in more than one sphere, without great fluency.¹ Probably there have been several with equally great gifts, who could not express themselves at all. And many a man, like Browning, and perhaps Wordsworth, is recognised as a greater poet than the bulk of his poetry would suggest.

Unquestionably there have been great artists who never painted a line, great musicians who composed no symphonies, great poets who have made no songs, and great religious seers who left no revelation of the mysteries they perceived. They felt and saw, but for them the rest was silence.²

Indirect Inheritance or Imitation.—But if genius is an upward variation of the normal type, it is a variation with this difference from others lower in the scale of nature. In other species the successful exception is the starting-point of a new physical variety. The human genius establishes no such physical change, and indeed often fails to propagate at all; but his achievement in itself operates as a mental variant, a potent stimulus to his fellows. The individual variation dies apparently without issue, but it has in fact furnished the leaven which in time leavens the whole mass.

And, indeed, without these powers of indirect transference, it is doubtful whether the higher and more spiritual elements

ideal, consummate moments the end is not distinct from the means, the form from the matter, the subject from the expression; they inhere in and completely saturate each other." In other words, they combine to produce perfect harmony.

But the exceptions bother me, and I am not satisfied with the theory that the mystic, for instance, who fails to express his visions or auditions, has no ideal, consummate moments. I suppose they are ideal and consummate—for him.

¹ He was probably handicapped by the fact that his expression was divided between art and writing—a strife between alternative dominants. The split ego is not equipped for success.

² Many monks must have reached the sublime height of St. John of the Cross, but only one was able to express it. Cf. St. Thomas Aquinas: "What I have seen so transcends what I have written that I will write no more." Shelley similarly confesses that his vision was greater than his verse.

And cf. Pachmann on music: "I know that under my magic fingers I evoke the soul of the piano. I know then that I am inhuman, unearthly, for in my music I am in communion with another world." This sense of being in touch with another world is common to all genius, but for Pachmann the essential avenue of approach was through Chopin. Like most great executants, he was not a composer.

could ever have become part of the common stock. For the actual advance is confined to few—so it must be with all leadership—and in any ordinary sense of the word, genius is of no direct or indirect utility to its possessor. In fact, judged by actual and contemporary standards, it is usually a handicap. Philosophy, science, and the arts are notoriously not short roads to wealth. But it is of little consequence that Plato was poor, for we are all his debtors; or that he had no children, for we are all in some sort his children.

In the extreme case of religious genius the mystic has generally renounced everything but his mysticism. The iron key to his golden door is poverty—not the degrading, because unwilling and resentful poverty of the everyday world, but the strengthening, because willing poverty of worldly renunciation. Moreover, the mystic is nearly always a celibate, and therefore unable to establish his kind by direct physical descent.¹

These spiritual achievements have therefore only been added to the common stock by becoming enpsychicated in the mental environment of the times; and man has thus added to his direct physical heredity an indirect mental heredity which is essential, not indeed to mere continuance, but to progress.

In the lower physical world the organism hands on increased capacity to its descendants, with whom it becomes a permanent possession and the foundation of a new family or genus; but when the higher level of man is reached, the process of transmission is obviously no longer one of merely physical and hereditary descent. Imitation and persuasion are now integral factors in the processes of life; and many who would never have attempted, or even seen,

¹ From the biological aspect, this self-imposed sterility is a most serious handicap to the study of the problem. Among the few mystics who had children were Augustine, Dante, Bunyan, and Fox. It must be admitted that their offspring appear to have been nothing out of the common. Blake, another married mystic, had no children.

The fact that genius does not perpetuate itself, whereas talent often does, is on the whole more difficult of explanation than the fact that it comes into existence at all.

the heights which Buddha trod of his own volition are ready to follow the pioneer when the path has been cut. They will not, it is true, reach so high as their leader—for the imitator who has drunk no such compelling draught of the well of life is bound to stop a little short of the forerunner; but they will nevertheless advance beyond the old level, and the advance will be permanent.

For that reason the first great impetus dies down, but the institution remains. There was only one Christ, but there have been many Christians.

• *Abnormal Increase of Personality.*—It will not be contended that these considerations fully explain the problem of genius, for there is still another exceptional type—the apparently ordinary man who is suddenly, in his mature years, transformed almost out of recognition into the supreme leader.

Genius as a rule tends to show itself young, in the immediate post-adolescent years when physical and mental vigour are at their height, the imagination fresh and fertile, and the will still unchecked by opposition or disappointment. But there are many cases in secular history of men who, like Oliver Cromwell and Washington, only develop their full stature late, when circumstance operates to develop latent ability; and others still more striking in religious history of men who have had some sudden and crucial spiritual experience and then, but only then, exhibit this seemingly abnormal increase of personality.

Often handicapped physically, individuals of this exceptional type have become possessed in time of an overpowering idea which strengthens and unifies the whole character, concentrates the entire activity on one particular end, and ultimately magnifies their influence beyond anything previously conceivable of the man.

It has already been suggested that potential genius may remain undeveloped or unrecognised through life; and the instances now to be mentioned seem to provide a valid argument in support of that assumption. Had it not been for some special stimulus, some pregnant accident that jolted the individual out of his psychic rut, here at least

would have been no crisis of the soul and no abnormal increase of personality ; no message, no mission, no leadership ; the ordinary man would have remained an ordinary man to the end.

Paul after his conversion was undoubtedly the same man as Saul of Tarsus. Augustine was still a philosopher, Loyola still essentially a soldier organising victory. But in each case the transformed personality, the force behind the action, was immeasurably bigger. Conversion seems not so much to have changed as to have enlarged the whole calibre of the man, to have raised the spirit to an altogether higher level, and to have conferred the power of living both more extensively and more intensively.

Saul of Tarsus before his vision on the road to Damascus was an obscure local fanatic of not uncommon type, a characteristic Die-hard of the Pharisees who resented any departure from the orthodox and accepted school. But the Paul who spoke to the Athenians and wrote the Epistle to the Corinthians was a man who took the world for his audience, and whose burning revelation of the new gospel was to influence the whole of future history.

Augustine before his audition was a kindly, thoughtful, and reasonably self-indulgent man ; there must have been thousands like him in the Roman Empire, and there are thousands like him to-day. But Augustine after his conversion became a figure second only to St. Paul in his influence on the Church.

Loyola again was a Spanish soldier of no particular distinction until an accident deprived him of his profession. But conversion followed, and in time he became the greatest factor in the counter-reformation that swept Europe, and founded an order which grew too powerful for every court, and even for the very papacy it was established to defend.

In each case an extraordinary experience produced an extraordinary result.

Theologians explain these transformations and heightening of spiritual content and activity—which can be paralleled

on a smaller scale by the hundred— as being due to the Grace of God. The term is objectionable for two reasons.

In the first place, it assumes everything and explains nothing. And in the second, those who ascribe the conversion of St. Paul, Augustine, and Loyola to divine intervention are compelled by the necessities of a particular creed to deny that the obviously similar process which occurred with Buddha, Mohammed, and many others was really comparable.

But the phenomenon remains confronting us, an apparent paradox in psychology, a clear instance of super-normal growth ; for when all is said and done, there were hundreds of Jews like the insignificant Saul of Tarsus but only one Paul the Apostle.

A. It has been said, perhaps rather fancifully, that genius, like love, involves self-sacrifice. In some superficial sort this appears often to be true, but this is not and can never be their essence. For genius and love are only exceptionally and secondarily a sacrifice ; primarily both strive for, and at times achieve, the fulfilment, the realisation, and in some rare and fortunate cases, this actual increase of personality.

These men were mystics, but at the start they were mystics who had not found themselves. Mysticism, like other forms of genius, often remains latent, an undeveloped or half-developed quality of soul which does not assert itself as a compelling influence, and survives—if it survives at all—as a potential and truncated faculty. A long catalogue might be made of men who obviously possessed the root of mystical perception, but who missed, ignored, or rejected the decisive experience which would have stimulated it to growth. They achieved their personal ambition, but their development and fulfilment was on normal and recognised lines.

But these exceptional men whom we are now considering, differed also from the ordinary mystic of the cloister ; not so much perhaps in essential quality, as in the quantity and direction of their work. They were mystics who did not find themselves until life had already stamped them

irrevocably as men of action. And at first sight the truth of this matter appears to be that the typical mystic is essentially a contemplative who shrinks from contact with the world, and is deficient in action and expression ; whereas St. Paul, Augustine and Loyola were primarily men of action to whom contact with the world and expression were both natural and necessary.

The former type therefore represents energy accumulated and long retained within the organism, which can have little immediate influence except on its possessor ; the latter is more dynamic and explosive—it must give out what it receives, and act as the messenger of its own message. While it absorbs little, and that not very deeply, it operates on the normal line of ancestral continuity, and therefore achieves little out of the ordinary. But when it receives much this necessity for action and expression compels it to give out much, and its influence may then change history.

This explanation seems almost certainly true when we contrast, for instance, the immense activities of St. Paul, the copious works of Augustine, and the dominating figure of Loyola, with the personal obscurity of the author of the Fourth Gospel, the practical anonymity of the Areopagite, and the simple record of St. John of the Cross. But it accommodates only part of the evidence, and cannot therefore be the full truth. It explains the consequence, but does not elucidate the cause.

B. The key to the change in these men evidently lies in the experience which changed them. And I think that an examination of this phenomenon shows that it can only be accounted for on the lines of earlier biological and psychological advance—the assumption that some new and potent stimulus has resulted in the conception of an idea which canalises and releases energy within the organism, directs it and expends it to some new end, and by absorbing more energy compels it to express itself in appropriate action on a larger scale than it had done before.

It is evident, of course, that these men were idealists.

Now an idea or ideal is nothing but a wish,¹ and we can only wish for what we perceive ; if ideas rule the world, it is because wishes control conduct. But a particular perception may appeal so strongly, and form an idea so potent that it dominates the individual who conceives it ; and he may then give up fame and fortune, even life itself, to attain the goal of his desire. The greater the ideal and the greater the certainty with which it is held, the greater the effect on the individual, and the greater the effect of the individual on others.

Manifestly it needs an extraordinary stimulus to produce an extraordinary result. But in these cases there can be no doubt either as to the nature of that stimulus, or its adequacy as a cause.

The ordinary man, faced by the problem of life and death, is always in precisely the same position as the honest old chief at the ancient court of Northumbria. " So seems the life of man, O King, as a sparrow's flight through the hall in winter—it flies in at one door and tarries for a moment, and then flying forth, vanishes into the darkness from whence it came. So tarries for a moment the life of man in our sight ; but what is before, what after, we know not."

So far and no farther stretches normal vision ; it realises vaguely the existence of something beyond life and death, but has no certain knowledge of these matters. But the mystic, whether he be famous or obscure, is in an essentially different position ; for he sees, or is at least persuaded that he sees, the hidden truth of the larger reality.

To us, as to the old Saxon, life is a brief light, a passing shadow, and then utter darkness. But to these others it is life itself that is a shadow ; for they are filled with the knowledge and the understanding that behind life and behind death there exists a universal being, an ultimate and eternal unity of consciousness from which and to which all lesser and individual forms of consciousness owe their source, being, and destiny.

¹ Occasionally an idea is a wish reversed—that is to say, a fear or dread. But in that case it will have a sedative, not a stimulating effect on conduct, and does not concern us.

This stupendous assurance is held with a certainty and clarity of conviction that leaves room for neither doubt nor question. It may come in a sudden flash of intuitive illumination, as a light from another world; or it may be the slow product and final culmination of long brooding over the problem of life and the fate of the soul. The vision may vary in content and depth; the mystics differ among themselves as to the details, and their interpretation of experience is less convincing and assured than the experience itself. But on the central point of that experience they are united.

Tennyson reached the heart of the matter as the mystic sees it when he wrote that, "All at once, as it were out of the intensity of the consciousness of individuality, individuality itself seemed to dissolve and fade away into boundless being—where death was an almost laughable impossibility, the loss of personality (if so it were) seeming no extinction, but the only true life."

This conquest of death by life and with it the fear of death by life, this removal of the ultimate limit and seemingly absolute barrier of human faculty, is the essential idea that permeates and colours all mystical thought from beginning to end. We find it alike in Buddhism and Christianity, in the Persian mystics, the Chinese contemplatives, and the seers of Islam. Nanak the Sikh, who taught the absorption of individual consciousness in the All-consciousness of God, held that "those who meditate on God are emancipated—for them death's noose is broken." Shinran Shonin likewise bears witness that "those who have believed the divine promise are no longer in the power of life and death." And Paul cries triumphantly down the centuries to an incredulous world that death has lost its sting, the grave is swallowed up in victory.

The idea is too high for us; those who have not seen will not believe. But this conception, whether true or false, of an all-conscious and everlasting unity, so remote from ordinary experience with its insistent emphasis on variety and transition, the local and immediate, the spatial and

temporal, and so difficult to grasp that every religion affirms it in theory and tacitly abandons it in practice, is the mystic's supreme achievement and contribution to human experience and thought.

It is this faith, held with so absolute a certitude and conviction, which liberates his soul from its crippling fear of physical decay and personal mortality. The mystic is strong because the common dread of death has vanished ; the end for him is the true beginning, the valley of the shadow in which he must walk is lit with light from the remembered hill of vision. Fear is cast out by the certainty that is more than hope ; in conquering death he feels that he has conquered the limits of life itself.

This, then, is the source of that super-normal growth which distinguishes the seer and the saint from the world of ordinary men ; thus is formed the great mystical genius. But we shall see in a subsequent chapter that its method is precisely the same as that of all other genius—it meditates on the subject that it loves, absorbs its meaning and its essence, until the soul is filled and overfilled with the thought of God, and vision and illumination come suddenly, but yet naturally, like an expected friend, as a light in great darkness.

The vision may be a dream and its interpretation but a delusion—into these grave matters we shall also enquire later—but at least this illumination is so far real that it produces real and tangible results. The limits which have bound human personality in its petty web of habit are now gone, and the individual is henceforth raised to an altogether higher power of life. Like all genius, it is conscious of having reached nearer to the eternal than we other creatures of time, it both attracts and radiates more vitality than the common integers of the crowd ; and thus it breaks the bond of circumstance, and changes the line of sheer repetition and continuity which is the lot of other men.

All genius, then, is an increase of physical or mental perception beyond the normal, an exhibition of surplus energy within the organism, and therefore all genius bears

witness to the existence of freedom and choice among those who have tacitly followed the road of predestination. But in the last analysis these additional perceptions on which all genius is based prove less a break of continuity than an extension and enlargement of current continuity and normal experience, whose meaning and significance we have only understood in part. And we may yet find that this is at least partially true of that mystery of mysteries, the beatific vision of the seeker after God—which must mean, if it means anything at all, that the part has become conscious of the existence of the whole.

The Limits of Human Genius.—It was said in a previous section that special ability combined with special training would ensure a superiority in matters physical of from three to six times the ordinary individual performance. We cannot, of course, measure mental superiority with the same precision as physical performance, but there is no real reason to doubt that much the same ratio applies to mental as to physical leadership. There are similar differences of mental as of physical content and capacity between individuals—the super-normal appears to be as much above the normal standard as the sub-normal is below it. Those individual differences are not, on the whole, very considerable in relation to gross capacity. But small as they are, they are decisive; and special training applied to special capacity will manifestly increase the inherent difference between the exceptional and the ordinary mental performance.

Genius is superior to talent, as talent is superior to ordinary ability—indeed, talent is to genius what friendship is to love—but the differences we recognise in the quality of the performance, between the master, the craftsman and the mere journeyman, are ultimately due to the quantity of the perceptions and consequently to the content of consciousness; in other words, they are differences of degree rather than in kind. If it were not so, genius could not be imitated; for the followers must see the leader whom they follow.

And moreover, excellence in one direction is always purchased by deficiency or atrophy in others. Shakespeare knows the human heart like no other man, but he blunders in history and geography. Milton is steeped in classical learning and music, but still refuses to accept the Copernican cosmos. Newton lays the foundation of physics, but fails as a commentator on the Bible.

It is the same in every department of life ; the physical or mental mechanism may be more or less efficient, but at best it is finite. The specialist wins, but he wins at a price. The champion runner outdistances everybody on the track, but remains otherwise an obscure mediocrity. The great painter makes a piece of canvas live, but his views on politics or philosophy are negligible. The prima donna melts our hearts with song, but her conversation is a vanity and vexation. And the great mystic, as we shall see later, is a spiritual force of immense potency in his own sphere, but on matters external to his experience his understanding remains ordinary, and sometimes below the contemporary standard.¹

There is therefore no reason to suppose that the mystic is an exception to the general rule of genius, save in so far as the conception of a greater idea may perhaps develop a greater personality. On his own ground, like all genius, he is supreme ; outside that ground, he remains ordinary.

But in the case of the mystic, as in all other forms of genius, this very quickening and enlargement of the spirit, of which he is perhaps the supreme example, is due in the first instance to perception, or rather to that faculty of extra-perception which is the basis and foundation of all psychic achievement. Without it, he remains one of the crowd ; with it, he commands our following. And this process of extra-perception and enlargement of personality, which means in fact the capture of more energy and the application of it to one particular end, seems to have been the source of all progressive variation in evolution.

¹ Chapter 6, Section 3 and 4.

St. Paul's magnificent argument on immortality in the Corinthians is logically ruined by the false analogy of the buried seed.

Each successive step upward in the scale of life has been achieved by the individual organism capturing more energy, and applying it to one particular end, which differentiates and raises it above the ruck of its fellows, and enables it to do things which they have not only never done, but never even conceived the possibility of doing. And ultimately it may be that what the biologist calls an increment of living energy and the psychologist defines as a growth of personality to the height of genius, and the religious denominate an inspiration and revelation from God, will prove to be one and the same thing.

CHAPTER III

A UNIVERSE OF VARIOUS MOTION

MAN is like a bird in a cage, whose windows are the senses. He can see through, and he is sometimes conscious of the existence of a greater world beyond these limited perceptions, but he cannot get out to explore it. From time to time one of the windows may open a little wider; this enlarges the view, but he still remains dependent on such experience as attends him within. The world for him is the world he feels, sees, and hears, and he builds up the little universe of the mind from these physical perceptions.

The result is at best no more than a working solution. But even this provisional and petty cosmos of our selection is not achieved without doubt and difficulty at every step.

Among the early discoveries which a young child makes in his first exploration of the interesting but perplexing world into which fate has cast him, is the fact that certain things lie within his physical reach, whereas others which he can see equally clearly are altogether beyond his grasp. He tosses a woolly ball in the air, and it returns obediently to his fingers. But that more attractive silver ball the moon, refuses to be tossed or fondled; and this regrettable contradiction between tangible and visible provides our first elementary consciousness of the problem of space.

About the same age, or possibly a little earlier, the youthful mind also becomes aware of an internal clock within his body, which at recurrent intervals asserts itself as hunger or fatigue, and insistently demands food or sleep. It is an erratic clock, which varies with the weather and the amount of exercise, and unluckily it does not always

correspond with the regular household pendulum. But it furnishes nevertheless the child's first consciousness of the problem of time.

Experience will enlarge and change these juvenile impressions, and in the unlikely event of our hypothetical infant becoming an astronomer, his early ideas both of space and time will be magnified almost out of recognition. But even if he reckons miles and years by the million, his primitive differentiation of space into things within and things beyond his reach will still remain personal and valid.

And not even the majestic procession of the stars will deny a melancholy reality to that elementary conception of time as an internal clock; for the evidence of everyday existence will assure him that every living creature is equipped at birth with a similar clock, which is set by the remorseless hand of racial ancestry for a limited number of days or months or years. The changes and chances of this mortal life may stop it before its time, and exceptionally favorable conditions may slightly prolong its beat; but in normal circumstances that internal clock will run for the precise period determined by heredity and no longer. The mouse will not live as long as the man, or the man as long as the tortoise; nor the man from a short-lived family as long as one from a long-lived family. Each in his own degree is controlled by the mortmain of the past.

Our Perception of Space.—Our actual perception of space seems therefore, in the first instance, due to the combination of, and the contrast between, the senses of touch and sight. But both instruments are manifestly limited, and therefore imperfect for that particular purpose; and consequently the world of space which we perceive is a fragment, certainly a selected and possibly a distorted fragment, of the external world of reality.

The primary business of touch is to perceive heat, not space; and the measurement of space by touch, though reasonably accurate, is a very laborious process. If we divide the universe into two unequal parts, the very small

tangible part and an immense intangible part, the sense of touch alone would ignore the existence of this greater intangible part, which is realised in our experience—so far as it is realised—by sight.

But the proper business of the eye is to perceive light, or rather certain effects of light, not space ; the visual perception of space is a secondary and consequential function, and its range in this direction is very definitely limited. For short distances in the immediate neighbourhood of the percipient it is acute, but for anything over a mile away its increasing incompetence soon becomes evident. At five or seven miles the human eye at sea will easily distinguish between a ship's navigation lights, the rising moon, and a remote star low down on the horizon ; but it will not by itself realise that there is any real difference in distance between the three.

To the uninstructed physical vision, in fact, sun, moon and stars all appear to be about the same distance—a few miles away in the sky. Outside our own immediate range, therefore, our natural conception of space is definitely misleading.

But space is always theoretically tangible—if we could get near enough to the ship or the moon we could touch them—whereas time is always intangible ; and the perception of time is therefore a more complex matter than the perception of space. The primary physical realisation of time as periodic hunger is due to the stomach ; but mental realisation of time as an external fact derives entirely from sight, which alone among the senses directly distinguishes light from darkness, day from night, summer from winter.

What we perceive with our eyes, however, is not so much time as the sequence of events which gives us the idea of external time ; and if we lived in a world of continuous daylight—or, for that matter, in continuous darkness, like some subterranean or submarine animals—we should be unaware that such divisions of time existed, and therefore probably unconscious of time as an external physical fact

at all. But the internal clock which regulates our lives would still operate within the animate mechanism of the individual.¹

Our physical perceptions, then, give us a world which, whatever else it may contain or consist of, appears always and everywhere to contain and consist of these primary and essential elements of external space and time; and subsequent mental experience analyses these elements further into three-dimensional space and one-dimensional time. This four-dimensional concept of the universe will in turn prove inadequate to cover the physical facts; but for the moment that question may be postponed while we glance at the problem of space and time as it appears to the rest of creation.

It would seem that as soon as any form of consciousness, even of one of the lower animals, is capable of the elementary but essential distinction between the individual and the external world, it must become aware of the existence of space—which is for it, as for all of us, the external world.² But the range of such knowledge in the lower categories of life must be extremely limited.

An animal such as a worm, equipped with only the three primary senses of touch, taste and smell, cannot even be said to conceive of space as a simple straight line; for being sightless it does not know what a line is, and it certainly has no intuitive knowledge of straightness or crookedness. Its perception of space must therefore be merely that of something external which is continuous; the world it knows is confined to the very minimum of the first dimension.

¹ The fact that our unconscious perception of the passage of time is often extraordinarily accurate has puzzled some psychologists. But the internal clock is nothing but hereditary memory and habit, which is automatic and mechanical in its workings. Now it is the business of a mechanism to work accurately.

² It need not, of course, be aware that this elementary discrimination is the foundation of the philosophic problem of subject and object.

It will, perhaps, be objected that the lower animals have been held to possess no self-consciousness. I doubt the correctness of that assumption; an animal that feels pain obviously locates it within, and not without its own body, and is, therefore, manifestly conscious of itself. But even if it is not self-conscious, it is aware of the external world, and therefore of space.

A four-sense animal—say a creeping insect with sight—has a much larger perception ; for it realises, not only that space stretches ahead of it, but that it extends on either side. Its space is still essentially continuity, but continuity with breadth as well as length ; in other words, the world it knows is a two-dimensional world.

But the creeping insect may still exist in flatland. It need have no knowledge of space above or below, and when its meditations on the nature of things are disturbed by a hungry bird, it must be as though a miraculous force appeared out of nowhere. Only when the animal succeeds in lifting itself above the ground by limbs or wings, can its idea of space have height as well as length and breadth. The caterpillar lives in a two-dimensional, the butterfly emerges into a three-dimensional world. Man himself can do no more ; the world of space remains a three-dimensional world to us.

Our Perception of Time.—The obvious distinction between space and time is that space is partially tangible and visible, whereas time is always intangible and invisible. It is therefore improbable that any animal below the level of man has any definite idea of time, or is even aware of its existence. And the fact that primitive savages have no proper time-reckoning, whereas their local spatial knowledge is minute and accurate, supports the assumption that the conscious perception of time is a later product of mentality, and therefore likely to be less developed than the perception of space.

But heredity, which, whatever else it is, is always a time-machine, determines the average longevity of every living thing, and consequently operates as an internal clock that regulates such incomplete perception and idea of time as it may possess. The life of an insect which is born at sunrise and dead at sunset may possibly seem as long to it as the seventy years of the Psalmist to man, but its perception of time must be very different ; and if it were capable of a reasoned philosophy—which it certainly is not—it could hardly regard sunrise as other than the beginning

and sunset as the end of a world which could not survive its own individual extinction.

An animal which lives through a summer must necessarily have a somewhat larger experience of time ; it has added the distinction of day and night, and learned to recognise sunrise and sunset as normal processes of nature. But even to such an animal, the failing sun and increasing cold of autumn must necessarily convey the impression of a dying world ; only when the full circle of the seasons is survived as a matter of course by the individual can time be regarded as a perpetual phenomenon.

It is not suggested, of course, that a dog or bird, whose life extends over several years, in fact regards time with such metaphysical eyes ; it lives in time as a child lives in air, but both are unconscious of its existence as an external fact. Probably no animal except man can think of a time when it did not exist—even children sometimes find it difficult to do so.¹

But the impression stamped by time on all the higher animals, whose span of life ranges from five or ten to two hundred years, must be much the same—that of a simple continuity whose minor and recurrent diurnal and seasonal variations only emphasise the regularity and evenness of its flow. Even with man, who alone seems to possess a definite consciousness of the existence of time, the concept has retained this idea of simple continuity ; and philosophy has accordingly treated time as one-dimensional, in sharp contrast to space.

But the fact that the relationship of space and time has long been recognised should clearly have thrown doubt on this superficial diagnosis. If space is three-dimensional,

¹ I can answer for this out of my own experience. I still remember the sense of shocked surprise with which I suddenly realised that things should have ventured to happen before I was born ; it was a kind of Copernican revolution in the mind.

A small child seems naturally to adopt this attitude ; it even thinks of sight as objective as well as subjective. A bright intelligent little girl of three assured me, " If my eyes were blindfolded you couldn't see me." To test this conception I told her some weeks afterwards I would come to say good-night to her when she was asleep. She answered promptly : " But when I am asleep you won't be able to see me."

there is theoretically good reason, until the contrary is proved, for supposing time to be the same.

The philosopher's one-dimensional theory of time is practically equivalent to the blindworm's knowledge of space—a simple continuity.¹ But the second dimension of time jumps to the eyes as the precise parallel of the second dimension of space—something which exists extra-personally on all sides of us, and which has not merely length but breadth. The individual can no more be in two times at once than he can be in two places, but the same time exists in many different places, and things happen at the same moment in London and Melbourne and Pekin.

The third dimension of time, which on the parallel of space should be provisionally defined as solidity, is indeed less obvious ; for time seems utterly incorporeal and insubstantial. It is this quality, no doubt, which has made many regard time as more spiritual in character than space, whose material texture is evident ; and it has even led to the idea, which Bergson has elaborated, that time is in some sort directly creative, since events and things appear in time which had no previous existence. But the fancy, though pretty enough, is delusive. Time of itself creates nothing and destroys nothing ; it is merely an element, or one of the elements of this phenomenal world in which creation or rather the processes of construction and destruction works.²

Time is in truth neither less physical nor more spiritual than space ; for time is a direct consequence of light, which is an essential physical fact. If we could conceive of a world without light, we should have a world without time ; whether such a world could exist is a matter we need not at the moment discuss. It is because light moves that time passes ; it is because light moves faster than anything else that time is irreversible. And while we are conscious

¹ It may be objected that we make the significant addition that time is irreversible, whereas any child with a spade and bucket knows that space, at least ponderable matter in space, is reversible. But the very objection should have pointed to the third dimension of time.

² Chapter 5.

of its existence as an external fact, we are not, as in the parallel case of space, directly aware of its three-dimensional character and its solidity. Its motion is too rapid for us to perceive all its properties.

Light exists everywhere, although it only becomes visible in contact with matter—that is, with that which moves more slowly than itself. But because light exists everywhere, time must also exist everywhere, although it can only become evident in contact with finite consciousness—that is, with that which also moves more slowly than itself. But if time exists everywhere, it is evident that time, like space, is solid; and therefore, like space, three-dimensional.

It has sometimes been suggested that if anybody were able to travel with the speed of light he would have no idea of time. The proposition is untenable. The more rapidly we move—as, for example, in an express train—the fewer spatial details we perceive. If it were possible for us to travel as quickly as light, we should almost certainly see nothing more of this familiar earth than an illuminated pin's head; but it would be time and not space that would be solid to us.

And therefore anybody who travelled with the velocity of light would be the first to experience directly the full nature of time, as something that is (a) continuous, (b) extended indefinitely on both sides like space, and (c) solid, because it exists around and above and below.¹

Time would then appear as essentially three-dimensional; what would change would be our conception of space, which would be very considerably but not absolutely modified. If we could travel from the sun to the earth in a few minutes it would be a very different world to us; but one would still

¹ It has also been suggested that if we could move faster than light, and therefore faster than time, we should see the effect preceding the cause, and according to Bradley, observe our neighbours dying before they were born. The paradox seems unreal. Light is the standard of time only because it is the quickest form of motion; if anything were quicker than light, it would itself become the standard of time. But the effect would still follow the cause, the hearse the perambulator, in a rational world.

only have traversed a very small portion of the whole universe in a single lifetime.

But light is broadcast through space. And while space would still exist if there were no light it is difficult to see how light could exist if there were no space for it to exist in. It seems therefore that space is the matrix in which the fount of time is cast, and in that sense it may be true that space is ultimately a superior reality to time.

Discussion of this point, however, would bring us to consideration of the medium in which both space and time exist—the medium we are forced to regard as infinity or eternity. But it will be convenient to postpone that problem to the next two chapters.

As a matter of ordinary daily experience, we perceive more of space, at least of ponderable matter in space, than time, and for that reason our ideas of space are on the whole less inadequate than of time; and, moreover, there is no part of space which we could not, at least theoretically, perceive with a sufficient telescope, whereas the major part of time—the past and future—cannot be perceived by any instrument. Nevertheless, it is probably correct to say that the infinitesimal portion of space which we personally occupy has precisely the same ratio to the universe in its total spatial aspect that our little moment of time has to the universe in its total temporal aspect.

It is, in fact, because we move at the same or a slightly faster speed than space that we think of it as tangible and three-dimensional; and because we move at a far slower pace than light that we think of time as intangible and one-dimensional. We are normally conscious of a four-dimensional world; but actually we live in a world which in its combined spatial and temporal aspect is not less than six-dimensional.

We perceive a Sectional World.—Our senses and experience then give us a world of space and time, the one tangible and visible, the other intangible and invisible. But enquiry and analysis show at once that this perceived world is essentially a sectional world, a conceptual fragment of the

real world which is selected by a particular type of consciousness. Indubitably that fragment exists, but it is a very small portion of reality ; and the superficial appearance which it presents with so certain an assurance of truth may therefore prove ultimately misleading. .

The world to us, for instance, is very largely a world of colour, whose varied tints and shades attract or warn the eye. But the traveller by air discovers that colour has sensibly diminished at two or three thousand feet above the surface ; and at twice that height he looks down upon an unfamiliar neutral earth, which is already dark while he is still in daylight. Probably, then, our perceived fragment of things corresponds to the total and ultimate reality much as the worm's little one-dimensional world corresponds to the four-dimensional world of space and time that presents itself to us.

The reason is simple. The consciousness of any living organism is always attuned to the particular range of impressions which are necessary or useful to that particular organism. It envisages a finite section cut by utility out of a conceivably infinite reality, and envisages that section as though it were the whole. It is aware of what it takes in, but knows nothing of what it leaves out, and it cannot miss what it does not know.

The senses ignore more than they perceive, and consciousness usually ignores something of what the senses perceive. It is, therefore, probable that our present interpretation, like the ordinary perceptions of space and time, also omits more than it includes, and that this world of six dimensions which logic has constructed is still only an incomplete and sectional world.

Our visual perception of change is practically limited to things within our compass, which move, or appear to move, at about the same pace, or rather more quickly than ourselves. We notice the movement of a tree shaken by the wind, or a dog running or bird flying. But the slower processes of growth in plant or animal escape the eye, and are only appreciated when memory comes to the

aid of sight. Yet the latter evidently involve movement as much as the former. And, similarly, we notice the movement of an avalanche, but not of a glacier; we see a fall of cliff, but only deduce a geological epoch; we see a shooting star, because it is near, but only deduce the apparently slower motion of the planets and stars, because they are more distant. Yet the differences are merely in the propinquity of the object and the rapidity of motion.

All our knowledge of the external world depends ultimately on recognition of motion, and the distinctions we draw between various kinds of motion. Our senses are instruments for the perception of movement, and therefore our consciousness is essentially a consciousness of movement and change and variety of motion. Now the sharpest contrast between varieties of motion is the distinction, which to us seems fundamental, between space and time. The one seems wholly static, the other wholly dynamic.

But the recognised relationship between space and time, which has already yielded three dimensions to time no less than space, suggests that space itself—that is to say, ponderable matter in space—must be a form of motion no less than time. Anything that travels slower, or apparently slower, than ourselves, we tend to interpret in terms of statics, and therefore of space. Anything that travels, or seems to travel faster than ourselves we tend to interpret in terms of dynamics, and therefore of time. Space thus becomes a mental synthesis of the less rapid forms of motion, and our concept of time a partial realisation of the most rapid form of motion. But what we actually perceive are different forms of the same thing, which is a dynamic universe whose phenomenal aspect is compact of perpetual but various motion.

Because that motion is everywhere continuous and relative to other motions, we infer that the phenomenal world is a world of order; a world in which cause inevitably produces effect, and effect inevitably follows cause. It is, therefore, also a rational world, in which reason is necessarily immanent and universal in all phenomena.

But that universal rational order of dynamic process includes, or has come to include, a multitudinous variety of motions ; and that variety of motions has produced the slow-moving elements which we recognise in space, whose concentration or coagulation in isolated masses has in turn determined the standard of time.

Matter, at least ponderable matter, is inert, massive, and coherent. If there were no inertia in ponderable matter there would be no gravitation, no cohesion, and no organism. Material substance is, therefore, the basis of individuality, and of every form of life and personality. But ponderable matter is a very small proportion of space ; and it is only because the greater part of space is void of ponderable matter that light travels so fast—or indeed travels at all, for solid matter stops light altogether, and even a thin diffusion of cloud affects its power of penetration. The denser the medium, the less the velocity of light.

But the time-reckoning of the universe depends entirely on the speed at which light travels, and consequently time depends on the emptiness of space. If there was ever a period in the history of things when interstellar space was filled with diffused matter instead of individual globes or solar systems, then time in our sense of the word can hardly have existed ; and if there were now any extensive diffusion of ponderable matter between the sun and ourselves, our standard of time would again alter. Ultimately, therefore, the passage of time depends on the distribution of matter in space.

Consciousness always Here and Now.—The most obvious fact about individual consciousness in relation to the outside world is that it is only Here and Now. No man, by taking thought, can transport himself to another planet or another century ; and even if it were possible, like the Seven Sleepers and other heroes of fable, to perform this astonishing migration, we should merely have altered our position in Space or Time, not our egocentric standard of reference. No doubt memory would remind us, as it does

now in normal conditions, that times had changed, but even if we suddenly found ourselves in the thirtieth century among the Martians, the thirtieth century and the Martians would still be Here and Now to us.

In actual life we are like men in a train, going steadily along an appointed track that we never saw before and shall never see again. We cannot reverse the engine or stop the train on its interminable run; but neither can our normal consciousness anticipate the scenery or the passengers who will join us from time to time, or even foretell the wayside station where the little troubled journey which to us is life will end.¹

We are perfectly aware that the country we have traversed still exists in space, but the time in which we traversed it has gone beyond recall. And thus we are, in a manner, spectators of a moving picture which rolls itself up as it passes behind us; but we know that much the same picture will unroll itself for our successors who pass along the road, and perhaps we are dissatisfied to think that the road seems everlasting, while the passengers are so manifestly transient.

At times, no doubt, we should prefer the position to be reversed, and our consciousness to be eternal and the path it travels merely temporal. And there are moments of exaltation, at least of egotism, when we are persuaded that the latter may be in fact the true position; when nothing seems permanent except ourselves, and the whole world of our perception is like a show that passes and is gone. Into this grave matter, which is crucial to the problem of consciousness, we shall look later.

¹ There are a few cases of prophecies and premonitions, which raise very difficult psychological and philosophic problems; or rather would raise them if they were more convincing. But after examining a great deal of evidence, I found that the more impressive the case the less authentic was the evidence; and the contrast seems significant.

The prophetic faculty in human beings is not impressive, and it is clear that ordinary consciousness has no prevision, apart from intelligent anticipation. History, which is full of disproved prophecies, shows that even intelligent anticipation amounts to very little, at any rate in politics. If we are like men in a train in our relation to time, the preponderance of memory over foresight suggests that we are travelling with our backs to the engine.

But when we come to examine this Here and Now of current consciousness, than which nothing seems at first sight more consistent and self-evident, we find that the mind itself has already passed silent judgment on its surroundings—it has, in fact, constructed or rather inherited a mental picture of the platform on which it stands. And the moment we look into the composition of this apparently solid and consistent structure, it becomes not so much a platform as a collection of planks which tremble and sound hollow to the tread, and through whose interstices we glimpse a very different world beneath. The platform is still our recognisable world of appearance and the senses, but the unplumbed abyss approaches reality. This is no longer the little world or section of a world we knew, but the stuff of which worlds are made.

A twist of the microscope, and this familiar Here is transformed into a fantastic territory of hitherto invisible inhabitants and unsuspected life ; another turn of the screw and the seemingly static condition of this petty fragment of space is changed into an endless dance of whirling atoms, each a world in itself. Here is neither life nor death, neither spirit nor passive matter of the old philosophies, but an intense activity in the seemingly inert.

We cannot work a similar transformation with the elusive Now, which is gone even as we attempt to hold it. Time passes like a swiftly moving shadow across slow-footed Space, and therefore time at least seems our master, if immediate space is in some sort our servant. But it is that because the movement of time is so much faster, whereas that of space is slightly slower, than our own. And consequently our consciousness is rather more spatial than temporal, because our rate of motion is nearer that of the ponderable elements which we identify in Space, than the speed of light, which is Time.¹

But if any living creature were able to move a few

¹ We act, think, and work, at an average regulated pace. We can quicken it a little on occasion ; but if we accelerate too far, or maintain the increased speed, exhaustion follows, and possibly panic and loss of consciousness. We have exceeded our customary rate of motion.

thousand times faster than ourselves, it would approximate more nearly to time than space ; and to such a creature our quickest trains would seem frozen stiff upon their metals, our fastest aeroplanes hang motionless in still air, and the progress of the planets round the sun would be as leisurely as a snail crossing the garden path.

We perceive Singularities, not Reality.—It may be thought too fanciful to suggest that our perceptions invert the order of reality in their recognition of a selected phenomenal world ; for they are demonstrably true in the position in which we stand. Yet our natural perception of Space is manifestly a constructive and utilitarian inversion of this kind ; for what we see is not in fact space but the more ponderable matter in Space ; the substance, not the medium in which the substance exists. All change, all growth, and all decay must be relative to something else, an absolute and whole which can neither change nor decay. This medium or absolute, however, we cannot perceive. The phenomenal and relative intrude on our attention ; the real escapes us.

It is as though we saw the actors and ignored the stage on which they play. But in this case the actors—that is to say, sun, moon, and stars—for all the splendour of their gait and raiment, are no more than lonely figures moving at long intervals across a colossal stage that dwarfs the mightiest performers ; how lonely they are, and on how great a stage they play, only those familiar with astronomical distances can even begin to realise.

We see no more, in fact, than the phenomenal singularities of space, but the real nature of space itself escapes us. And consequently it may not be altogether preposterous to suggest that our natural perception of time may in the end prove as much a selection and inversion of reality as is our natural perception of space ; for both space and time demonstrably exist within the same medium.

It is therefore at least conceivable that we perceive a singularity of time, and ignore its real nature. It is possible that our attention is concentrated on its local and immediate

manifestation, but that its essential character, and the continent medium in which it exists, escape us.

It was said above that a child lives in air as an animal lives in time, but that both are unconscious of the fact that this continent medium surrounds them. The grown man, however, is conscious of time as a thing that passes ; and there comes on occasion a feeling that time is something more, a perception as of a permanent background behind time that does not pass, a transient consciousness of a medium in which time itself exists.

This is the source of the concept of eternity ; and we become momentarily aware that we may, after all, be living in eternity as the animal lives in time, but that our normal consciousness selects the smaller, and ignores the greater fact. Like the Sphinx in *Œdipus*, we attend to the matter in hand, and let the unknown go ; but it is because we let it go that it remains unknown. Concentration on the temporal excludes the eternal.

This solid Here of our construction is therefore no more than our perception of immediate Space, this fleeting but continuous Now no more than our perception of immediate Time ; both are finite sections cut out of reality, and we are more conscious of the section than of reality. (So old and instinctive is this preconception—whose embryo must date from the dawn of mental life—that it is difficult to think ourselves out of the idea that Space and Time are ultimately real. Nor is it necessary or desirable in ordinary life to do so ; for the finite section immediately present to our minds is of more local importance to us than the endless vista of an unperceived reality.)

All the hosts of heaven, then, are mere isolated and occasional singularities of the field of space, like a sail here and there on some vast ocean ; only the sail is visible and the ocean is not. These visible and material singularities are demonstrably finite ; but the stage of space on which they move may be either finite or infinite.

But these material singularities are also temporal ; for these individual worlds and systems of worlds are con-

ceived in the womb of space and in time they die. These moving stellar organisms we see are essentially mutable and transient. But the energy of which they are composed, and which is the true substance of the universe, is indestructible, and therefore (if the word have any meaning at all) eternal.

Now it is difficult to believe that that which has no limit in time can have a limit in space, for time and space are interdependent.

This majestic mechanism of multitudinous motion, of which one little point is our present Here and Now, is the consequence of the variable distribution of energy in the universe. It is true, of course, that a world composed of ponderable material elements must necessarily be finite, because it consists of finite organisms; however inconceivably remote, it must contain an ultimate planet and an ultimate atom. But this is the phenomenal world, and the real world is greater than the phenomenal which it includes. And consequently this visible universe of ponderable matter is finite, but the real invisible universe of energy of which it is part may conceivably be infinite as well as eternal.

Now, unless we adopt the intolerable and illogical position that everything, including ourselves, is illusion, the fact that a phenomenal world exists must be taken to prove not only that (a) a real world exists, but also that (b) this finite and visible process of which we perceive a part either derives from or is an integral and selected portion of the real world. The tree of becoming has its root in being, this demonstrably finite and temporal Here and Now is a current and local section, a perceived singularity, of the conceivably infinite and eternal.

But as to the constitution or properties of this real world, we can as yet only postulate two things, apart from the bare fact of its existence.

1. Like the phenomenal world, the real world must be fundamentally rational, since a rational phenomenal world could not be part of, or derive from, an irrational real world.

2. Unlike the phenomenal world, which is demonstrably temporal and finite, the real world may be (at least hypothetically) eternal and infinite.

Beyond that, the real world remains to us unknown ; but perhaps not unknowable.

Space-time a Process that Proceeds.—The selection made by the senses has been determined by one insistent principle. The development of life is dominated by one cardinal aim—the necessity of going on living ; and the range of perception is primarily directed to ensure continuity and self-preservation. If we could see light travel through the air in the same fashion that we see a bird or an aeroplane, it would certainly be a very novel and interesting world that presented itself to our astonished gaze ; but we should be incompetent to deal with the actual section of the universe in which we live.

The living organism is not conscious of what it does not perceive. But it does not perceive what is of no particular use to it. If, therefore, we perceive only one dimension of time, and do not normally perceive eternity at all, it is because this wider range of knowledge is of no current utility. Every form of activity strives for the maximum of efficiency with the minimum expenditure of energy, and the consciousness of a living organism is merely a complex form of energy concentrated on one essential end—the perpetuation of a life which could not continue to exist without that particular form of consciousness.

In practice we discover energy in the phenomenal world as a series of levels or platforms of chemical concentration—hydrogen, helium, carbon and so on to the more complex materials of the geological strata. These exist materially under conditions of space and time ; that is to say, they continue recognisably the same for a more or less definite period. Gold does not suddenly turn into lead, or a bar of iron transform itself unexpectedly into a bar of soap. Continuity is the badge of all the tribe.

But things do not continue the same for ever. Sooner or later the equilibrium of forces is upset ; the bar of iron

rusts, the sandstone rock crumbles, the solid granite cracks and disintegrates. So long, however, as material energy has recognisable substance as a chemical unit, it exists in space and time; or to speak more strictly, we recognise the substance of materialised energy as existing in conditions of space and time.

But it does not follow that all the energy existent in the universe is thus recognisably materialised; nor can we deny the possibility that energy may exist in other conditions than those of space and time, where we can no longer directly recognise it. Indeed, unless we postulate—what we cannot yet prove—the existence of energy in other conditions than those of space and time, the universe seems to become unintelligible.

For (a) space-time is a process. Now a process must proceed. It must, therefore, have a beginning and an end. But the universe has neither beginning nor end.

And moreover (b) the essence of material substance is not its recognisable entity, for that is demonstrably subject to change—enlarging or contracting its substance in space, and subject to terms of periodicity in time. The essence is its energy-content, which is indestructible, which has, therefore, neither beginning nor end, and consequently only a local and temporary allegiance to these conditions of space and time.

It cannot, therefore, be assumed that the whole universe consists of recognisable substance. Only that part is recognisable which exists on the levels or platforms of chemical concentration, in the conditions of space and time known to us; and there is consequently no reason to conclude that these categories of energy are the total energy-content of the universe.

On a certain level or platform of these chemical ascents life becomes possible; and life as we see it is above the average level at which material energy, according to our observation, exists. Even unconscious life at its lowest appears to be energy in highly concentrated and complex form, and the type of conscious life of which we ourselves

furnish the supreme example is the most highly concentrated and complex form of energy of whose existence we have direct knowledge. The higher the type of life, the greater the consciousness; and if we could separate the two, we should be forced to conclude that consciousness was a higher form of energy than life.

But life, like the diverse forms of lower and less concentrated energy, has very variable terms of temporal continuity. The life of a species exists at a certain average level of energy, which it embodies in the race and the individual, and its tendency is to maintain that level at a racial constant from generation to generation. Life does, however, vary slightly in its individual level, one person absorbs and gives out rather more energy than his neighbour, and therefore this individual unit exists on a rather higher level than that.

But there comes a time to all of us when we can no longer consistently maintain this average level or platform of the species, and the end of that downward path is disintegration, and a passage from the known enigma of life to the unknown enigma of death. Life as we see it is essentially a study in continuity, like any other form of material energy; and its individual surcease seems, therefore, at first sight a study in discontinuity.

But to reason thus may be to reason falsely. For all continuity must from its nature be a condition of limitation, a concentration of energy which achieves a temporary equilibrium and stabilisation on a certain level; and the fact that we continue along a certain line, whether of space or time, evidently forbids us from exploring far on either side of that line. But the fact that a line exists is itself an indication that something exists on either side of that line; and the continuity of the line of life thus manifests itself as essentially a limited section of existence on a particular level of space and time determined by ancestry and current circumstance.

This continuity in space and time, this section of which alone we are conscious, is our individual selection from the medium in which space and time exist, and of which they

form part. That medium we call eternity, and time is the level or platform from which we know eternity.

Now we shall find reason to suppose that eternity is not so much the opposite of time as the inclusive continent in which time is found ; and that this straight line of current time is merely the local footpath across the field of the eternal. The alternative, then, to continuity in time is not necessarily total discontinuity, but merely discontinuity in time ; and this may be no more than a removal of the current limitation, and a stepping from this temporal footpath into the field of the eternal.

The Here and Now of current consciousness are therefore nothing but a duplex mental presentation of a cosmic physical process which reveals itself always and everywhere as essentially one of continuous and various motion. The crux of evolution is variety—if there were no variety there could be no events, no life, and no finite consciousness—and this variety of motion is probably due to the excess or deficiency of energy in the local or individual organism.

The causes of this variety of motion remain to us inexplicable ; it is here, if anywhere, that we must look for the Will of God. But this multiple movement, this incessant and interpenetrating activity that we distinguish as Space and Time, is demonstrably a process. Yet we have seen that it cannot be merely a process.

In the first place, a process must proceed ; it must have a beginning and an end. But the universe has neither beginning nor end.

And in the second, every shred of evidence we possess shows it to be not only a continuous and general, but inherently a rational process, in which effect always follows cause, and similar effects always follow similar causes.

Reason inherent in the Universe : its Nature.—This inherent reason in things proves the same at all times and in all places ; wherefore we regard the world as an orderly unit that everywhere obeys the same laws ; and therefore as neither a dualism nor an anarchic pluriverse, but an actual and consistent unit or universe.

Now it is the essence of a rational process that it shall have not only a beginning and an end, but a rational explanation. In an entirely rational universe nothing can be beyond the scope of reason ; there is practically an unknown with which contemporary human reason cannot deal, but 'theoretically there is no unknowable within the universe' The fact that we cannot perceive the explanation is no ground for denying its existence ; for the beginning may not be in Space, the end not in Time.

But the nature of this immanent reason in things requires further definition.

Reason, as it exists in the finite living organism, has been defined as neither action nor thought, but as the scales in which action and thought and their consequences are weighed ; a faculty not of progress but of balance, which operates as the physical and mental balance of the organism.

But since the world is a rational world, reason must be immanent in things as in persons, physical and chemical as well as mental and psychic. Nor will the rational balance of the universe be confined to the visible and tangible processes of the phenomenal world ; it must equally characterise the real world, since the rational world of our perception could not derive from or form part of an irrational real world. And this fundamental and universal reason must therefore be prior to these processes and these phenomena ; immanent in Space and Time, yet anterior and superior to them ; implicit in extension and duration, yet bound by neither. Space and Time are processes of motion ; Reason is neither process nor motion. The mass within the measure moves ; the measure itself is still.

Reason as we commonly know it—that is to say, rationalisation on the level of the finite living organism—is often indeed a process ; a kind of trial balance as we go along. It is faulty and capricious, because men are driven by their passions, not their reason, and desire runs ahead of judgment ; but in the long run even passion is weighed in the scale of reason—this is the final balance that makes the moral law

inescapable.¹ Now this process of rationalisation in ourselves is the shadow of the immanent reason in nature which all experience shows to be universal.

Wherefore we are driven to conclude that reason is ultimately real and not phenomenal; and consequently to postulate that if any God exists, reason is an attribute, and as yet the only certainly ascertained attribute, of God.

¹ The influence of reason on love, says a maxim of Hafiz, is like that of the raindrop on water, which makes one little mark and then disappears.

But the poet forgot that water is made up of raindrops.

CHAPTER IV

THE PROBLEM OF ETERNITY

TIME as we know it is a consequence of light ; if there were no light there would be no time in our sense of the word. Unfortunately if there were no light there would also be no life or living consciousness to experience this hypothetically timeless universe.

It follows that every star which emits light originates its individual time-system operative for itself and its satellites. There are thus millions of different time-systems radiating from different local centres in the universe.

But there is no uniformity of type in these various stellar and solar systems. The stars and their satellites differ from each other in size, area, speed, and orbit, and the time-systems which depend on them therefore differ in their several local characteristics.

Even on such near neighbours as our adjacent planets the length of day and night, the seasons and the years, is different from our own ; and if we were suddenly transported to another stellar system, the natural and enforced divisions of their local time would seem to us amazingly eccentric and obscure.

But all these various systems, young and old, large and small, near and remote, nevertheless agree in two essential things. The speed and succession of light-waves is everywhere the same. And the rate at which time passes is everywhere the same.

Local divisions of time differ endlessly, but light travels everywhere, time exists everywhere, and the speed of light and time are universally the same. The seventy years

of the Psalmist on our earth would be no more than thirty odd years on Mars and might conceivably be a mere summer afternoon on the invisible planet of some distant sun. But the length of that summer afternoon would be precisely the same as our seventy years, because the speed and succession of light, and therefore the passage of time, would be the same there as here.

The calendar, in short, depends, and must always depend, on the local system, and the place within the system. The clock follows suit in current fact, but need not necessarily do so ; for what the clock really registers is not the divisions but the passage and therefore the duration of time, although its hands are subdued to the local time it works in. And while the divisions differ, the actual duration of time is universally the same.

The calendar is bound to observe the local time-system, or it would have no meaning ; a Martian almanac would be useless in London, and an almanac constructed from the periods of one of the binary stars would be simply unintelligible to us. But the clock, which registers the passage of time, has no necessary connection with the local time-system at all ; a Martian clock transported to London would register the passage of time as accurately as Big Ben. It would merely require a new face to conform to local conditions.

It is true, of course, that we set our clocks by our own sun, not by Sirius or the Pole Star, but that is a matter of local convenience and propinquity. For the individual time-systems of the heavens, though primarily valid for the particular group, are not closed and shut against each other, as the sky at night is sufficient witness ; wherever light travels it carries time on its wings. Local divisions of time in other groups are very different from our own, but basic time is precisely the same everywhere, because the speed and succession of light-waves is universally the same.

The stars wax, wane, and die in the heavens like individual human beings on earth. When the parent-star of a system cools, it ceases to give light, its local time-system also ceases,

and it remains a dead thing until collision with another body melts and releases its frozen energies ; upon which the new stellar organism again emits light, and again becomes the centre of another local time-system. During the interval between stellar death and catastrophic resurrection it has been like a clock that has stopped ; time has passed all round it, but it has not told the time.

If ever the day comes when the burnt-out sun of our familiar system trails its cold planets through the sky, the local group-time of our present use will cease. But if we could imagine some lonely survivor of this dead earth in the ruins of Greenwich Observatory, he would still be able to regulate his solitary existence by observation of the nearer stars. The divisions of day and night would indeed have vanished, save as a pious remembrance of immemorial custom, for the world would be wrapped in everlasting night ; the year, the seasons, and the lunar month would all have gone. But light would still reach this planet from the stars, and therefore the clock could still be set by stellar instead of solar time, for the duration of a second or a minute on Sirius or Orion is precisely the same as here.

The local time-reckonings of the universe therefore derive from a series of individual systems dependent in each case on the emission of light from a parent body, on the distance of the satellites, and their orbits and revolutions ; but real time—its actual passage, uniform succession, and constancy of duration—derives from the uniform speed and succession of light-waves through space. And time thus appears at first sight to be the absolute of the known physical world, because its standard of motion is that of light, which is at once uniform and the fastest known motion perceived by us.

Light and Time Relative.—But in fact light is relative, not absolute ; and therefore time as we know it must also be relative to something else. The speed, succession, and frequency of light are relative to the spatial conditions it encounters ; and the passage and duration of time are relative to the absolute that we call, without as yet under-

standing its quality, content, or meaning, by the name of eternity. The stream of time begins and ends in the ocean of eternity ; but how it begins, and where it ends, are matters that elude us.

This sequence of time, indeed, is like an endless train that passes us as we stand on our little platform of space. We are aware of the speed and succession of the coaches as they pass, but there are also moments when we become aware of the permanent way beneath, without which the train could not run at all. It is the character of the permanent way which ultimately determines the speed of the train ; and the permanent way on which time runs is eternity.

Light as well as time must be relative to eternity. Now light, the standard and source of time, has weight and substance, and is subject to gravitation. The presence of ponderable matter blocks the passage of light, breaks it up, absorbs and disintegrates its radiant energy. It is therefore physical and to some extent inert, and its transmission through space is not instantaneous. Light takes some minutes to reach the earth from the sun, and several years to reach the earth from the stars. Light and its derivative time are therefore relative to space ; and in that sense light, which creates time as we know it, also consumes time on its passage through space.

Here is an immediate and apparently serious difficulty.

1.—Let us suppose for a moment that light were wholly immaterial, devoid of weight, and free from the pull of gravitational inertia. In that event the transit of light from one end of the universe to the other would presumably be instantaneous. What kind of world should we be living in, and what kind of time ? And would time in our sense of the word continue to exist at all, or should we discover ourselves in eternity ?

The proposition is, of course, an impossible one ; but if it could be carried out as an experiment, it is doubtful if anybody except an astronomer would notice the difference. A few dead stars whose light still reaches us would immediately disappear. A few young stars whose light has not yet

reached us would suddenly become visible. The sun would rise and set a trifle earlier. Beyond that, there would be no perceptible change. So far from feeling that we were translated into eternity, most of us would probably forget to alter the clock the necessary few minutes. The actual duration of time would be precisely the same after our impossible experiment as before (apart from the lost few minutes while the light from the sun changed from relative to absolute speed).

The speed at which light travels would indeed have changed, but the succession and frequency of the light-waves reaching us would remain the same; and the duration of time would, therefore, be the same.

2.—It happens that we are ordinarily more conscious of the passage of time than of its duration; and this is largely because the variety of events included in the passage of time is evident to the senses; whereas its steadfast duration is only evident to the reason.¹

The rhythmic and even succession of light-waves is, however, far too rapid for visual observation, and we therefore, think of the actual and physical passage of time as mere continuity. But if once more we could imagine the impossible, and light-waves were only emitted from the sun every few seconds, like the flash from a light-house, we should probably be as conscious of the periodic succession as of the steady continuity of time. While if the emission of light were spasmodic or irregular in character, we should certainly be more concerned with the succession than the continuity of time;² in the same way that we are conscious of the even continuity of life, and not of the regular beating

¹ Our perception of the passage of time is in practice not quite the same thing as its actual duration; it varies according to individual interest or attention—an hour of toothache, as everybody knows is longer than the longest day of pleasure. Variety of experience colours and to some extent distorts personal judgment; and it is proverbial that time seems to fly faster as we grow older, because life has more mechanical duties and fewer novelties. But these are personal misjudgments rather than judgments, and we know that in fact the passage and duration of time is always an even flow.

² Every traveller in a railway carriage with a flickering light can prove this for himself.

of our heart during health, but in an attack of palpitation the position rapidly becomes reversed.

In this second experiment the frequency of light-waves would have changed. But the speed of light would be the same as before. And the duration of time would still be the same as before.

3.—And now let us imagine a third, and equally impossible experiment. If we could travel with the speed of light, let us travel from the earth to the sun and back again. But we should not return to the earth at the same time we left it, for nearly twenty minutes would have elapsed on the double journey. Both the speed of light and the succession of light-waves would remain the same, but time would still have passed on our travels through space.

It is, therefore, clear that the passage of time is relative to the transit of space. Time passes for us because light travels more quickly through space than we do. Time passes evenly for us because the succession of light-waves forms an even and regular sequence. And the fact of time passing and the fact of its duration are normally for us the same fact, because the position in which we stand remains always relatively the same. But the preceding discussion has made it clear that the two facts coincide rather than coalesce ; time passes while duration continues.

Light is relative to space, and, therefore, time is relative to space ; whereas duration at least seems in some sort independent of the sequence and succession of time. Time is always quantitative, since it can be measured as it passes ; whereas duration is qualitative as well as quantitative—the endless permanent way on which time travels. Time is thus the pattern which changes, or may conceivably change ; whereas duration is the stuff which does not change, on which this pattern is printed.

At bottom, then, the passage of light and time, and our position in space from which we perceive these birds of passage, are all relative to an absolute which underlies both, which for the moment we must define as duration. And since there cannot be two independent absolutes in one

universe, it is clear that this quality of duration must be in some way associated with eternity.

Space, Time, and Succession.—Our perception of time, then, is a duplex phenomenon. We live in space as well as time; and time passes because light moves so much faster than the ponderable matter of which the earth and its inhabitants are made. It is because we are confined to one spot, which is Here, whereas Time moves faster than we do, that we live in the present Now—a constructive local point of current consciousness, which includes memory of the past, those events and fragments of events which flying time has dropped as it passed us on the wing.¹

Memory is in fact the retention by the organism in space of the stimulus or impression which events have made upon it in time. And our perception of the passage of time is in fact a perception of the succession of time across the particular point of space we live in. And if this succession be not wholly an illusion of our mind, it derives from successive waves of light emitted from the sun, and transmitted to the spot where we perceive them and absorb them. But these waves of light have a spatial as well as a temporal

¹ It may clarify discussion to define the term event. Events are of all kinds of size and importance from a stellar catastrophe to a cat's sneeze, but every event is ultimately one of two things—an emission of energy by one finite organism or a reception of energy by another. And since there can be no reception of energy without its precedent emission elsewhere, we can say that fundamentally an event is always an emission of energy. And the basis of all events (and consciousness of all events, as Chapter 5 will indicate) is the emission of light from the sun.

We take it for granted that we live in the present. But we never actually see the present; there is always a time-lag between event and perception of the event, and the event as perceived is only part of the actual event. The individual lives in a constructive present of his own making, bounded by his own limitations of perception, but every event as it reaches him is already past. When a dog barks at a postman, it is an event for the dog a fraction of a second before it is an event for the postman.

There is always a difference between the actual event and the event-for-me, measurable by the time which news of the event takes to reach me, and the space through which it has to travel. The event may have occurred ten million miles away or ten million years ago, but it is only the event-for-me when it reaches me. The light we shall perceive to-night as Sirius or Orion exists already, but because our consciousness is local we cannot see it before it arrives. If our consciousness were spatially more inclusive it would be temporally larger.

character, as the heavens bear witness ; and, therefore, they consume time on their journey because the speed of light is relative to the space through which it travels, and not absolute. Space is the frame in which time works.

Now space consists immediately of the ponderable matter we can feel or see, and of the imponderable but still physical element of light and its consort time. But space consists ultimately of the hypothetical medium, whose existence we are bound to assume, in which ponderable matter and light and time exist. Matter and light are like the hour and minute hands of a clock ; one moves faster than the other, but each moves in unison with the other, and both depend eventually on the central and unseen mainspring and mechanism of energy and the event.

But while the hour and minute hands of the clock move, the actual clock does not move, either in space or time. This is the medium which we call duration and eternity (or, as we shall see shortly, extension and infinity) ; and this is the medium within which both ponderable matter and light and time exist and move.

Time a part of Eternity.—The emission of light within a medium that contains it, and consequently the succession of time within that continent medium, thus resolves itself into a phenomenon—an endless series of perceived local singularities dependent on some fundamental reality of the universe. The perceived singularity, of which alone we are directly aware, is time ; the fundamental reality is duration or eternity.

Time is necessarily part of eternity, for the phenomenal is always part of the real, a selected immediacy against an invisible larger background. But the relations between part and whole are obscure, and in what way time belongs to eternity is as yet unascertained. And, therefore, although the word is often on our lips, eternity conveys no precise meaning to the mind.

Time has often been construed as essentially a sequence and succession of events, a process, an activity, and a duration ; whereas eternity, if it is anything at all, has been

conceived as a condition—a state not necessarily of inactivity and no-events in which the procession of life is frozen stiff upon the march, but a condition certainly of perpetuity and everlasting duration; and conjecturally even of universal immediacy, simultaneity, or instantaneity—the mountain-top from which everything is seen at once, not the plain of limited horizons on which the daily business of existence is transacted.

But this conception, at least so far as time is concerned, is demonstrably incomplete and inadequate. Time is not so much a sequence and succession of events as a sequence and succession of light-waves, emissions of energy from some central source. And this succession appears to us as a uniform straight line, along which events take place.

Normally we are only conscious of the uniform straight line of time, and the events which occur in its track. But that is because our normal consciousness of time is local and one-dimensional; for we know that in fact light is broadcast in all directions from its source, and therefore time is everywhere, and events may take place everywhere. And it is obvious that events occur on either side that narrow line, of which we are ordinarily ignorant.

Both the event of which we are conscious and the event of which we are unconscious occur in time, and they may occur at the same time. A Prime Minister falls in London, a child is born in Chicago, a sundowner dies in the bush in Australia, a sportsman shoots his tiger in the jungle, a jaguar seizes its prey by the Amazon—all these things are local emissions of energy, and all may happen at the same moment. But the medium in which those events occur, and the synthesis which must ultimately fuse and unite an event on this earth and another contemporary event in Aldebaran is eternity.

Further, if the universe is a unit, eternity must be a comprehensive and harmonic unit, in which all the conflicting and dissociated local events of these various temporal series are ultimately attuned and fused into one. For it is axiomatic that there can be no conflict in eternity, or the universe

itself could not exist as a unit. A house divided against itself cannot stand.

And it, therefore, becomes clear that eternity can hardly be the opposite of time or the static negation of active process and events; but rather the completion and fulfilment, the rounding off and consummation in another and greater dimension, of this phenomenal and processional world of various motion, physical light, successional time, and ponderable matter in space. We live in time, but in some as yet inexplicable fashion we also belong to eternity.¹

We think of time naturally as a straight line—a simple continuity; and we think of eternity (so far as we do think of eternity) as a circle, which has neither beginning nor end. Both images are probably just, in the position in which we stand; although in fact time is demonstrably more than continuity, and we may therefore suppose eternity to be more than perpetuity and duration.

But the alleged straight line of our continuous time must also be part of the circle of eternity, in the same way that the straight line of the surveyor is still part of the circle of our globe. Men lived on an apparently flat earth for thousands of years before they discovered it was round, and we are still so conscious of the straight line traced by time that we are seldom aware that a longer sweep than the petty measure of our years would demonstrate the nature of eternity. Probably if we could see more of duration we should be less conscious of time and more conscious of eternity; for ultimately our idea of duration—as we saw in the previous chapter—depends on the scope of consciousness.

It does not follow, however, that eternity abolishes the succession of events, any more than the roundness of the earth abolishes the approximately straight line of the surveyor; it must rather include events, as the clock includes the hands and pendulum. The processional character

¹ Blake has striven to express this idea of an omnipresent eternity:—
“The vegetative universe opens like a flower from the earth’s centre,
In which is Eternity. It expands in stars to the mundane shell
And there it meets Eternity again, both within and without.”

of things with its cause-effect sequence can hardly be altogether an illusion of our minds—at least, if that is illusion, everything may be illusion, including the assumption that we exist.

It is an indubitable fact that we live in a world of cause and effect. But the actual cause-effect sequence of our cognition results from our consciousness being confined to the first dimension of time, which is simple continuity. If we moved as fast as light, time would be three-dimensional, but we should still live in time, though in a very different time from our familiar reckoning. Time would still pass, but we should be more conscious of the passage of space than of the lapse of time ; the universe would still be a process, in which succession of space would largely replace the succession of time. It would still be a universe of events and of cause and effect ; but of different events and a cause-effect sequence seen from a different angle. We might be nearer the understanding of reality ; or merely aware of a different section of reality.

It is the essence of a phenomenon to be a partial representation of reality ; otherwise it is hallucination. And it is the essence of a process to proceed ; every series in space and time must have a beginning and an end. This phenomenal and processional world of space-time and cause-effect must, therefore, in the nature of things have had a beginning. It must also have an end, some time and somewhere. And it must also be part of the real world of eternity.

Now any part of any whole is always both alike and unlike that whole ; the differences between part and whole being generally more or less superficial and obvious, the resemblances fundamental and deep. We do not know that this is so as regards the likeness and difference between time the part and eternity the whole ; but there seems at least a slight bias or working probability that it will be so.

The superficial and obvious fact about time is its sequence and succession ; we are, therefore, less likely to find sequence and succession characteristic of eternity. And the deeper

and less obvious fact about time is that the light-waves from which it derives are always a form of energy in motion against a background or medium of duration; we are therefore, more likely to find that energy is characteristic of eternity as well as time—the common denominator and point of contact and resemblance between part time and eternal whole—and that the medium of duration which is the background of time is the foreground of eternity.

This processional and phenomenal world of light and time is everywhere compact of energy. But its obvious characteristic as a process is always action—it travels fast, it travels everywhere, and always at the same pace. The temporal process, in short, proceeds as a series of expressions or explosions of energy, an active sequence of movements and transfers of energy from one point in space-time to another point in space-time. Its less obvious characteristic is conservation and indestructibility; the energy of which it consists is transferred and transformed from one organism or inorganic entity to another, but never lost or annihilated.

If energy then is eternal as well as temporal, it is less likely that it will exist eternally as action, expression, explosion—since these are obviously temporal aspects of a process; and more likely that it will exist as a conservative and continent reservoir, the medium in which these processes of activity and expression take place.

Eternity, in short, will contain activity, events, and time as the sea contains fish or the air contains moisture. But it will hardly itself be active, so much as the medium in which activity exists; it will hardly itself be the process, so much as the source from which the process proceeds and to which it returns. Activity and change, growth and decay manifestly exist. But they are also, like light and time, manifestly relative. And they can ultimately only be relative to the source from which they proceed, the absolute which contains them, the medium which is necessarily continent and contemplative of these processes of action in space and time.

Eternity Implies Infinity.—But eternity also implies

infinity ; for the relations of space and time attest that that which has neither beginning nor end in time can have neither beginning nor end in space. It is only the ponderable matter in space which is finite. But this is a mere material singularity of the universe, the low level or platform from which we survey the real world ; actually we can conceive no end to space, although we can conceive an end to time. And this is so because space is infinite, whereas time is finite.

We shall find later that this consideration entails momentous and decisive consequences. The real world is greater than the phenomenal world which it contains. Now the phenomenal world of ponderable matter in space is finite, temporal and physical. But the real world is now beginning to disclose itself as infinite, eternal, and super-physical ; in which case it must presumably be psychic. And on that account we may eventually be forced to conclude that consciousness, not unconsciousness, is its ultimate characteristic.

And this will seem the more likely when we discover that light is not merely the source of time, but the conductor of consciousness ; and the fact that light travels everywhere shows that potentially at least consciousness exists everywhere.¹

We have seen, too, that the real world is contemplation, not action. Now even in our local and individual dimensions the business of life is action, but the business of consciousness is contemplation of action.

These large matters are far beyond our customary measures of perception and reason. A hypothetically infinite universe revolves eternally like some great circle on itself ; the single point of our perception through the windows of Space and Time is Here and Now. Yet there are in fact moments when we feel that our roots are deeper and more lasting than those that have been dug for us in time. We are part of the energy that makes us and slays us, but the energy of which life is compact existed before

¹ Chapter 5.

earth began, and will survive though the heavens fall. And it may yet prove that eternal infinity is neither the organic life nor death of our familiar dimensions, but the timeless stuff of impersonal consciousness that was before life and is after death.

The Medium in which Time Exists.—Our perception of external time, as of everything else, is through the senses, which perceive a succession of vibrations. The sense of sight perceives and absorbs the vibrations of light; the sense of hearing perceives and absorbs the vibrations of sound.

Light, like sound, is essentially an explosion, or series of explosions, of energy transmitted through space; light being an explosion transmitted more rapidly and to a greater distance than sound, as sound in turn is propagated more rapidly and to a greater distance than smell. But that is not for us its most distinctive character. The significant difference for our purpose is that one is a regular, the other an irregular, pulsation of energy.

The vibrations of light are perfectly regular, and therefore the succession of time is uniform; but the vibrations of sound are not regular. The more rapid the vibrations of sound, the higher the note and, if the rapidity of sequence be maintained, the more lively the music. The less rapid the vibrations, the deeper the note, and the more solemn and stately the music.

There is thus no difficulty in recognising that sounds are a variable and discontinuous series of vibrations; and therefore a temporary irruption into, and disturbance of, some permanent medium, without which they could not come into existence. Of that medium, as it happens, we are not often directly aware; for the transitory vibrations of sound interest us so much that we concentrate attention on these interruptions, and ignore the brooding stillness and silence of the background. This solemn stillness cannot, of course, be heard; but it is there, a silence that can sometimes be felt.

It is not so immediately evident that our perception of

time involves similar consequences ; for the cosmic vibrations of light, unlike the local vibrations of sound, are perfectly regular. And the steady and inalterable sequence of time which flows from this immutable series is perhaps the most impressive thing in our world. Indéed, some have held it to be the ultimate reality.

To disturb, arrest, or alter those cosmic vibrations of light as we do these local vibrations of sound is indeed beyond human capacity ; the steady sequence of time proceeds regardless of our will.¹ But as noise or music is the meaning which certain irregular vibrations called sound have for us ; so also time—at least our conception of time—is the meaning which certain regular vibrations called light have for us.

Yet manifestly this regular sequence of light and time, like those irregular pulsations of noise or music, must be built upon something ; since otherwise it could not exist. It follows, then, that time, like sound, is a temporary disturbance of some permanent medium. It can, therefore, hardly be true that time is the ultimate reality.

This particular misconception is at least partly due to the fact that it is because sound (which is local) sometimes ceases that we are occasionally conscious of the immense silences of infinite space, the contemplation of which terrified Pascal ; but it is because time (which is general) never ceases, that we are far less often aware of time's ultimate source and foundation—the medium whose existence, without as yet understanding its true nature, we are driven to postulate as eternity.

Now eternity has usually been regarded as something incredibly remote and different, the very antithesis and antipodes of time. But there is a consideration which compels us to postulate the actual and immediate presence of eternity.

Few will deny the proposition that we exist ; it is indeed the one certain fact of universal experience. Now it is

¹ We can, of course, disturb, arrest, or alter the vibrations of light on the smaller scale of local or domestic illumination.

immediately evident that we continue to exist during the perceptible intervals between the successive waves of sound which reach us. It is less immediately evident that we continue to exist during the imperceptible intervals between the successive waves of light which reach us ; but a moment's reflection shows this to be true.

We are apt to ignore the fact because the succession of waves of light is so frequent and regular that we are not normally conscious of the intervals between them. But the existence of these regular intervals follows as a logical necessity from the existence of successive waves of light ; and since life is continuous, it is clear that we continue to exist during these imperceptible interstices of light and time.

Now these interstices of light and time can again only be explained on the hypothesis of a permanent medium, a something in which light and time exist. And that medium must be eternity.

It seems, therefore, to follow that our existence—and the existence of the whole phenomenal world—must be fundamentally in an eternity which is actually here and now, and that time is the meaning we put on that portion of eternity of which we are normally conscious. Time is in fact our perceived section or selection of eternity.

To say this is not in the least to destroy the actuality of time. The vibrations of light, on which time depends, have a definite existence ; and both our immediate and general experience of the whole phenomenal world demonstrate that the current interpretation is normally justified ; for we are born in time, we live in time, and in time we die.

But if it is a true interpretation, it is not necessarily the whole truth of the matter. For the fact that we continue to exist during these intervals of light, and therefore during these imperceptible interstices of time, suggests that time is not the ultimate source or final measure of our being.

And as we shall find that light is the conduit or conductor of consciousness, but yet not consciousness itself ; so also we shall see reason to suspect that time, which likewise

derives from light, exists on a lower level or platform of energy than eternity. Time is, therefore, not eternity, but the conduit or conductor through which we may discover something of eternity.

Mystical Experience of Eternity.—Moreover, it is certain that we do now and then become conscious in some manner that this monotonous succession of regulated time is not in fact the final measure that it seems ; there are moments of vision when we seem to look through the interstices in this lattice-work of time, and attain some idea of the essential reality behind these phenomena.

We cannot indeed stay time upon the wing, but there are occasions when we suddenly become more aware of the intervals between the beats of time than of the beats themselves. This may be merely a passing feeling, so slight and transitory that it leaves one doubtful whether there has not been some momentary fantasy or illusion of the senses, as indeed there may have been ; or the experience may be so overwhelming in its nature that the percipient, like St. Paul, seems to be carried out of the body, and transported to another world.

At such moments we become aware that time is secondary and relative, whereas eternity is primary and absolute ; and this rare experience seems in some sort to conquer death, which is manifestly an event in time ; and to open out the possibility, and to the percipient even the certainty, of existence in that other and greater dimension.

And even if this conviction is a mere delusion of our minds, it may well be believed that an experience so strange and startling, and so opposed to every natural instinct and all ordinary logic, must transform every normal and recognised value of this current existence ; it is as though the creeping caterpillar were suddenly to realise that it could fly.

Yet it cannot truly be said that in such moments of illumination we put a different meaning on the recognised actuality of time ; rather do we perceive that time is not the full measure or the final meaning of things. And those

who have had this rare and unforgettable experience henceforth understand that time has merely a relative, not a positive value. It is the measure of our lives, but not the full measure of the universe, or even of ourselves. To such men time may still be the pulsing of the heart of God, but the eternity of which they have caught a momentary glimpse is the very essence and spirit of God.

Physical Difficulty of Accounting for this Experience.—It is evident that our normal consciousness of light and sound derives directly from the senses of sight and hearing. But this abnormal consciousness of the infinite silence and the eternity in which both light and sound exist seems not directly so derived; for the senses perceive only motion, and this experience is felt as no longer motion, but absence of motion; and this abnormal consciousness may therefore be not of motion, but of the medium in which these particular motions exist.

For that reason the mystic claims, and seems at first sight justified in claiming, that the upper heights of the pathway to reality lead him beyond the summit level of the senses. The problem thus raised is difficult but not, I think, insoluble.

We have yet to examine this abnormal consciousness in detail. But we know that the lower road of customary perception is carried safely across the bridge of the senses, and it is through the senses alone that we become aware of our normal phenomenal world. But it is also through the absorption of energy by the senses that we first become aware of the gaps in that particular interpretation. Only when the senses have done their work does the flash of mystical illumination come; and then, when consciousness is momentarily aware of its own true nature and its kinship with the eternal, the senses have no more to say.

Physical perception can do nothing when the cup of experience overflows. But had it not been for physical perception it would never in fact have filled.

Liable to Misinterpretation.—But precisely because this state of consciousness is abnormal, it is liable to be misinterpreted. Mortal mind is built up of sensation and action, of

response, absorption, and expression ; and it can never forget its physical ancestry. A state of pure consciousness entirely free from the contribution of the senses can hardly exist in man as we know him, and in any event this condition cannot exist for long ; both the entrance and the exit of the mystical path to the heights of reality run through the normal channels of sensation, and discovery of the unknown must always translate itself in symbols of the known. There is something of earth in the vision of heaven, and time itself lays a hand in restraint of the quest for the eternal.

These things interpose to check and colour the state of pure consciousness for which the mystic strives, but they do not wholly control his new spiritual perceptions. All life is struggle and conflict, and consciousness as we know it is coloured by conflict ; but there does come at these times a persuasion and indeed an assured conviction that consciousness exists ultimately in other terms than those of conflict, and that we have momentarily at least come in contact with this higher and more harmonic order.

These experiences, as we shall see later, are charged with many lower elements ;¹ but we shall also see that they have a philosophic basis that is not easily shaken.²

This perception or intuition of the interstices of time is a transient and fleeting vision, confined to few, inadequately apprehended even by those few, and often inaccurately translated by them into the language of familiar experience. But those who attain this perception of reality, fragmentary and imperfect though it is, are none the less changed men, stamped with the mystic seal of a knowledge beyond human understanding. Experience has given them a new strength, and charged them with a power that has often moved the world ; and we have found, too, that these perceptions of the unseen and the eternal have also a definite relation to the length of life of the percipients.³ For them Time and the Will to Live have no longer quite the same meaning ; they have caught a glimpse of that from which both proceed.

Residual Character of this Experience.—Eternity, then,

¹ Chapter 6, Sections 3 and 4. ² Chapter 5. ³ Chapter 2, Section 4.

exists within as well as without the temporal series, and it is probably only in so far as it exists within the temporal series that we can actually experience it, and then only rarely, in our current consciousness. Even within that limited range we may grossly misinterpret our perceptions; outside that range it seems to elude us altogether.

We are bound upon the wheel of time—which the Buddhists call the wheel of life—but if we could for a moment control that interminable sequence, instead of being controlled by it, we should perhaps become aware of the true nature of eternity. For light and time, like life and consciousness, are a concentration and explosion, a series of successive collections and expressions, of finite energy; and although the form of energy may change, the thing itself is indestructible. But eternity, could we but understand its significance, must be the very stuff of things, whereas time is merely the pattern printed on the stuff. We see the pattern, and ignore the stuff, but the pattern fades beneath our eyes, whereas the stuff endures. All things are made and perish in time, but nothing is annihilated in eternity.

This, then, is eternity as human consciousness conceives it; the medium in which the phenomenal world exists and circulates, of which it is made—as a man is made of the earth on which he walks—and of which, therefore, the phenomenal world forms part. This is for the mystic the essential reality, the invisible substance behind the visible shadow, that men have called God. But for him it is not so much the presence of God, which is everywhere, as consciousness of the immediate presence of God. And that consciousness is necessarily limited by individual perception; to some it may never come at all, to others it is but a blurred and passing glimpse, but to the few of larger vision it shines like the very light of truth that makes them free.

It has yet to be seen whether these mystical perceptions can be justified by reason. If they cannot, they may still conceivably be true; but for us others they will remain unproven.

Energy and God.—The real world, then, so far as we know,

it, consists fundamentally of energy. And this energy is distributed unevenly, and makes itself apparent to our limited perceptions as a series of various motions, in a universe which manifests itself to us everywhere as a rational world of space and time, cause and effect, and a continuous sequence of events.

We arrive, therefore, at a concept of energy as the primary and universal force before all things and implicit in all phenomena. It is omnipotent, because the source of all power; omnipresent, because the foundation of every world; eternal, because increate and indestructible; and infinite because eternal.

Energy is consequently real, not phenomenal. But so far as we have yet analysed its properties, energy seems to fall short in one respect, of what men have conceived to be ultimate reality. In each of the above qualities—omnipotence, omnipresence, eternity, and infinity—energy coincides with accepted definitions of God; and it may be that if we could actually see energy instead of its latent and partial manifestation as matter we should come near to seeing God. But in another respect it diverges, or seems to diverge—for the difference may be due to incomplete definition—sharply from that supreme conception.

Energy is indeed eternal, in the sense that it has neither beginning nor end in space or time. But this perpetuity seems still to retain the quality of succession in its duration; there is so far nothing to indicate that it has the simultaneity or instantaneity which has been assumed to be a property of God.

Energy precedes and survives the events and organisms of which it is the fount and substance, but we have, as yet, found no indication that it is exempt from, or superior to, the ordinary succession and sequence of those events. But if that is so, then the eternity of energy is directly subject to the measured foot of time; and the real submits to the apparent. The conclusion seems illogical.

An Eternal Consciousness.—Now this postulated simultaneity, this hypothetical instantaneity, this universality of

outlook, is a property which men have attributed to God. Assuming for a moment the existence of God, this property is evidently a quality which energy either possesses or does not possess.

If energy does possess this property of simultaneity, then it is difficult to see how it is distinguishable from God. But if it does not possess it, then either God does not possess it ; or there is a recognisable distinction between energy and God. And if a recognisable distinction, then a definable distinction.

But if simultaneity or instantaneity is in fact a property of energy, it must imply that energy in its eternal aspect possesses consciousness, and a consciousness superior to time. For it is evident that only consciousness, and a consciousness superior to time, could possess this eternal simultaneity, and thus be above the ordinarily perceived sequence of events ; and superior to that successional character which has hitherto attached, or seemed to attach, to the definition of energy.

The essential thing about consciousness is that from its nature it must always be Here and Now. Even with the finite organism there can be no past consciousness—only consciousness of the past, which is memory ; no future consciousness—only consciousness that a future will come, which is anticipation. If then God is conscious, that consciousness must also be Here and Now ; and such a consciousness must necessarily be absolute, inclusive, and universal.

And if energy does possess this absolute consciousness, we shall be forced to conclude that energy—which is already defined as omnipotent and omnipresent, eternal and infinite—would by the addition of this property become indistinguishable from, and perhaps actually recognisable as, God.

Let us see whither these arguments lead.

Arguments as to its Existence.—If this absolute consciousness of energy does not exist, obviously we shall find only negative evidence. If, on the other hand, it does exist, we may reasonably expect some positive indications to be discoverable.

It is true that we need not expect to understand a universal consciousness which implies absolute simultaneity—for any perception short of the absolute must always envisage the universe as a phenomenon and a process in space or time. But we can at least hope to discover some démonstrable indication of its existence, in the same way that the mathematician deduces the existence of an unknown star before he actually finds it in the heavens.

A. Every living creature may be theoretically expressed as a bio-chemical unit, whose physiological structure and psychological content are conditioned by its ancestral and individual past. It will be a more or less complex unit according to its rank in life ; but it is still definable by a series of symbols as a chemical equation.

We may revolt from this seemingly melancholy conclusion, and construct some fantastic dualism of soul and body to appease our wounded pride. Unluckily, no such dualism survives analysis. It may be true ; but there are no clear indications that it is true, and many that it is not. But for all that, some obstinate minds may still remain sceptical that life and thought, and the world of love and sacrifice and great ideals, can be even theoretically expressed in the terms of a chemical equation.

That persistent scepticism is justified, but not the blind revolt and still more blind solutions proposed as a remedy. The fact that a human being can be theoretically expressed as a chemical formula, but that we are practically aware of something lacking in the equation, does not prove that at some definite, but unascertained date, and by some definite but unascertained process, humanity became possessed of a conscious soul, insubstantial and therefore incapable of definition in any chemical formula. But it does indicate that the symbolism of our chemical equation is incomplete, since it omits an essential of the organism.

But if this is so, then the symbolism of all our chemistry must be incomplete, and we may suspect that in every case it defines the external aspect of the thing, but omits the

internal reality ; that it registers a stage in the event, but has no explanation of the event itself, still less of the process or the source of the event.

And if this is true on the higher planes of life, it is manifestly not less true in the lower spheres of what we call matter ; for there is no such sharp dividing line here as an older philosophy assumed. If there is consciousness or soul within the chemical equation called man, there are no less elements of consciousness or soul in all things ; spirit seems the fount of matter as of man. Response may sleep soundly in its shell, but it is there ; and there are moments of illumination when we become aware of some part of this common kinship of the universe.

B. All finite consciousness results from perception, and perception is essentially response. If there were no response outside life we might be able to say dogmatically that there was no consciousness outside of life. But response exists in non-living as well as living ; it is universally present, an essential property of every element.

It may be below the level of consciousness ; at any rate it exists in very different categories and dimensions. But at least this fundamental basis of consciousness is a universal attribute of ponderable matter. The essential element of consciousness is therefore not a singular and isolated, but a general property of every definable form of energy.

Now when the essential of consciousness exists in every definable form of energy, it seems highly improbable that it will fail to exist in the one form of energy that is indefinable.

C. The phenomenal universe of stellar and planetary organisms that we perceive is finite—a series of finite organisms, all of which obey the same laws. But the consciousness of man, an individual part of one of these organisms, manifestly includes more than these organisms, since it has become aware of the laws which control them and the unity behind them ; and from these we deduce, according to our experience and standard of intellectual proof, the possibility, the probability, or the certainty of God.

The consciousness of the whole, however, cannot be less comprehensive than that of the part ; and any consciousness of the universe or God must consequently include more than the finite physical universe, and therefore reach beyond it. If, therefore, it exists at all, it must be infinite.

D. All finite consciousness is a local and transitory event in space-time ; but an infinite consciousness, if such exists, must be more than this. It must be at least the summation of all finite consciousness and all local events in all space-time ; in the same way that an equation is formed by the product of as many simple equations as there are units in the number expressing the order. It may be more, it cannot be less than this.

Finite consciousness can interpret God according to its perception of the universe ; but until it understands what the universe is, it cannot understand what God is. A summation of all the consciousness in the universe, however, would be no longer a partial interpretation but an understanding of things ; something that exists upon a higher level, and is different in quality as well as quantity.

And this seems logically to follow. For finite consciousness is dependent on physical and mental perception, which is essentially limited and selective. On these selections is built the way of life, the physical habit, the mental attitude and purpose of the organism. But infinite consciousness would not thus select ; it would be universal, and therefore its perceptions—if we can still legitimately use the word—would not merely be larger in degree, but different in kind, from those registered in our minds.

Finite consciousness is from its nature an internal awareness of an external and apparently finite world, of which nevertheless it forms part. An infinite consciousness, on the other hand, must from its nature be an external awareness of an internal but still finite world, which it includes and which forms part of it. With us the mind is part of the body which it directs ; but with an infinite consciousness this visible body of the universe must be part of the mind which directs it.

With us again the conscious subject is aware of the object, which it perceives, but which need not necessarily perceive it. With infinite consciousness the absolute subject must contain the relative object, which may or may not perceive it.¹

E. Human personality is composed of many different strands ; all of which contribute to, and are controlled by—or at least should be controlled by—one central consciousness. The individual is a multiplicity in unity.

But the universe is also a multiplicity in unity. Its diverse material properties constitute the visible multiplicity ; and they possess the faculty of response, which is akin to the scattered and localised forms of consciousness characteristic of life.

The fact that a real unity is inherent in this apparent multiplicity is a scientific and philosophical deduction which can hardly be successfully challenged. If there is no principle of unity then the world is an anarchy, and both experience and reason assure us that it is not. Let us call the principle of unity, the One behind the Many, God. But in the case of the universe, as of man, the existence of an ultimate unity suggests that the physical diversities contribute to, and are actually controlled by, one central consciousness.

F. Every finite form of consciousness—that is to say, every form of consciousness of which we have direct knowledge—is a perception of motion ; it envisages the universe as a series in space and time, these being commonly recognisable forms of motion. Indeed, it is because we generally take space and time for granted as fundamentals that we are not directly conscious of, and do not search for or

¹ If the universe is a closed or finite system, it cannot run down, since none of its energy can escape. This suggests at first that it is a closed and finite system, since energy is indestructible. But if closed, there may be other universes, and this universe could not be universal ; which is absurd.

But within this universe we know, no system or unit of which we have knowledge is entirely closed ; it is open in some degree to response and perception of other units. It is therefore hardly conceivable that the universe as a whole is a closed system ; for universality of response implies both infinity and consciousness.

enquire into, the conditions of the eternity implicit in these phenomenal conceptions.¹

Being part of a physical and chemical organism, this finite consciousness partakes of, and is conditioned by, the physical and chemical nature of the organism. It exists within the organism like any other form of energy in matter—which is precisely what it is ; a unique form of energy in a unique embodiment of matter, but essentially a finite integration of energy ; its actions and reactions far more highly sensitised than those of non-living organisms, but essentially actions and reactions nevertheless.

But infinite consciousness is always at bottom a manifestation of energy, and the universe in its finite and temporal—that is, its phenomenal aspect—cannot be greater than in its eternal reality and entirety ; the whole is necessarily greater than the part which it contains. Since therefore response and consciousness exist in the visible part of energy, they must also exist in the invisible whole.

But an absolute consciousness must be very different from any form of consciousness we know. Finite consciousness is conditioned by the perceptions of the senses, which select a fragment of reality and assess it. Absolute consciousness can make no such selection and assessment ; it must perceive not in part, but as a whole.

Moreover, finite thought is an action, and a temporal process whose range and speed is demonstrably limited by the capacity and customary speed of action of the mind which thinks. Absolute mind can be subject to no such limitations, go through no such processes, and therefore have no such thoughts. It would not so much think as understand, with a perfect and full understanding that renders thought in our sense of the world superfluous.

G. It may seem at first sight impossible that any relations can exist between such different forms of consciousness as our finite mind, and this hypothetical infinite mind. But we know that relations can and do exist between very

¹ Ideas of space and time intrude even in Dante's *Paradiso*, the most sustained attempt to depict eternity in literature.

different forms of finite consciousness. The whole range of ancestral experience and habit may be dissimilar, and exist on wholly diverse levels of intelligence and conduct ; but if there is a point of conscious contact two animals may find that point, and within that narrow limit become aware of and understand each other.

The same will presumably hold true of the vastly greater difference between an infinite and any form of finite consciousness. However different the level of their being, if there is a point of conscious contact the finite may discover that point, and within that narrow limit become aware of and understand the infinite.

Now a universal consciousness would differ from a finite and limited consciousness in almost everything, but on one point at least it must not merely resemble but be identical with our own. We picture our individual point of Space-Time as Here and Now. To a universal consciousness the whole of Space and Time, and not a single point, would be present ; but it would still be Here and Now.

Absolute Being that is conscious cannot, in fact, from its very nature be anything but a universal Here and Now. And in that sense our intellectual conception of the universe as a process and becoming may eventually prove to be merely a necessary consequence of the limitation of our perceptions ; whereas our actual consciousness, which is always Here and Now, may be a mirror which reflects this universal consciousness with perfect accuracy on the vastly smaller scale of finite individual life.

This appears to be the only point at which actual contact between the known finite consciousness and the hypothetical infinite consciousness could occur. And it is extraordinarily significant that it is precisely at this point that religious experience perceives, or is at least persuaded that it perceives, the existence of a universal consciousness ; a persuasion which brings with it so strong a conviction, and indeed so absolute a certainty, of the actual and immediate presence of a conscious God that it is

difficult even for hostile criticism to dismiss it as entirely illusory.¹

Much religious experience is rightly suspect because of its manifold contradictions and the admitted absurdities it reports. But the accounts of this exalted contact are everywhere substantially the same. And on that ground alone it would not be altogether easy to regard this supreme ascension and achievement of finite consciousness as wholly an illusion of the mind ; for similarity of testimony is everywhere a rational test of evidence.

Moreover, it is a familiar fact that even on the ordinary level of daily life, we are influenced by, and absorb something from contact with our fellows. Now this high spiritual experience is followed by an accession of power and increment of personality in the percipient which seems to indicate, not only that this contact has actually been established, but that finite consciousness has drawn something to itself from the infinite.

In that practical aspect, then, as well as in the more theoretical argument, the experience seems to attest its own validity ; and to lend support to the proposition that universal consciousness exists.

H. In the strict philosophic meaning of the term, no doubt, God is unknowable ; the less cannot contain the greater, nor the finite comprehend the infinite. But in another sense it would be true to say that nothing but God is knowable, because there is nothing but God to be known. This, however, is little more than playing with words ; and it must be added that in any ordinary meaning of the phrase, and to thousands of ordinary men and women, and not merely to the mystic, God is not only knowable, but known as a fact of experience—an experience so real as to be absurd for them to doubt and impossible to deny.

For most people this is probably an emotional perception, the product either of unusual stress or unaccustomed quiet ; with a small minority, perhaps, it is rather a reasoned intellectual conviction, a serene harbour only reached after

¹ Chapter 6, Section 4.

a tempestuous voyage. But this sense of the universal presence and consciousness of God is felt, I suppose, at times by almost everybody; certainly it is by no means confined to the professedly religious.

Now these experiences can hardly be regarded as abnormal—they are too frequent and above all, too accessible; nor can they be dismissed as wholly illusory and of no account, for all experience has at bottom some basis of fact, and even subjective hallucination has always some objective stimulus as its source. We may (and do) continually misinterpret the nature of experience, but experience itself has always some foundation of reality.

Our normal perception is of a phenomenal, not the real world; of a selected part, not the existent whole. Yet we are compelled to recognise that the real world exists, although its reality eludes us; for the senses are instruments of limitation, which present no more than a current fragment to consciousness. And as to that we can only say that those whose perception is confined to the phenomenal world of local values are only dimly aware of any general consciousness; but those who seek and therefore find something more of ultimate reality discover in this experience an overwhelming proof of the eternal consciousness of God.

The evidence for the existence of a universal consciousness therefore depends finally on experience as well as reason—our knowledge both of the world and of ourselves. If experience were greater, the evidence would be larger; but as it stands, it seems as strong as much of the evidence on which we all accept without hesitation ordinary statements in everyday life. And indeed, in some ways it is stronger; for individual experience will always corroborate this great body of testimony at any time and in any place.

It is when we come to rationalise this experience, to interpret this universal consciousness of whose existence we find so many different indications, that difficulties and dilemmas begin. But here, as in every other form of human activity, perception runs ahead of reason. And, further,

since God is universal, we are bound to find the God we seek ; and therefore to interpret the God we discover according to the meaning which God has for us ; with confusing and contradictory results.

But the essential problem as to the existence of a universal consciousness seems not so much a question of faith as an answer of experience.

The Universal Equation of Reason.—Another line of argument leads to the same conclusion.

I. The universe is rational throughout, and reason is nothing but a true balance ; the scales in which the weights are tried. But the existence of universal scales implies the universality of perception and response. For if the measure did not perceive the mass that is weighed, as well as the mass respond to the measure, the scales would be defective and useless ; and this wholly rational scheme of things would be in part irrational, which is absurd.

But reason is never greater than perception in our phenomenal world, and we cannot therefore assume it to be greater than perception in the real world. The fact then that reason is universal consequently indicates that perception is also universal. We know this to be true of the phenomenal world, and there is no ground to suppose it untrue of the larger world of reality. Now perception is the first element of consciousness.

It is conceded that God is wholly rational and therefore just ; an unjust God would be as monstrous an absurdity as an irrational universe. Everything else may be illusion—even this tangible and visible world itself, as the Persian mystics teach, but not the reality of truth and reason, and therefore the existence of justice.

Now if God were nothing but reason and justice, there would be no consciousness of God ; and some have in fact held this to be the true solution. But this can hardly be ; for reason nowhere exists without perception. And a universe that is wholly percipient and entirely rational is hardly conceivable unless it is also conscious.

Yet neither reason nor perception is imposed from with-

out; both are demonstrably implicit in the world. And we must therefore conclude that perception, like reason, being universal, is inherent in the scheme of things.

Now, the perfect measure of this rational universe must be God, the just balance on which all depends; and this universal perception of God must be the source of all consciousness.

II. It has yet to be discovered whether this divine faculty of universal perception reaches the level of active consciousness; and this is a more doubtful matter.

Ordinary observation suggests that outside the higher forms of life—a very small element in the universe—consciousness does not reach the level of activity. But this deduction may be misleading—the truth as we see it, but not the whole truth.

The universe, being rational, must be a perfect equation. But obviously it is an equation of which we perceive only certain units. Nothing that we see gives reason to suppose that pure consciousness—as of a spirit without a body—is one of those units; rather does active consciousness appear always to be a characteristic of certain of those units—an essential characteristic indeed, but one that is nevertheless transitory, and to some extent fugitive, in the individual unit. Active consciousness as we know it is a localised and temporary concentration of the faculty of universal perception and response.

There is consequently nothing to suggest that the pure consciousness of an altogether external God is the unknown *X* of this equation of the universe. If there is a supreme universal consciousness, then this consciousness of God can hardly be an isolated and separable unit in a universal equation. It must be a characteristic, and an essential characteristic, of the equation as a whole; a faculty inherent, like reason, in the scheme of things.

Now our perception and response is admittedly limited, but most assuredly it generates an actual consciousness. And I do not think we can argue that a perception which is unlimited, and a response which is universal, is thereby

estopped from being conscious. On the contrary, the greater the perception the greater must be the response, and the more inclusive the consciousness; and where perception is infinite, the resultant consciousness can hardly be finite or fugitive.

But precisely because it is inclusive, it cannot be active, but contemplative. The universe includes activity, but ultimately it is greater than action.

III. And since that universal equation cannot be expressed in terms of space and time, but is infinite and eternal; it follows that the rational perception and consciousness which characterise the universe must also be infinite and eternal.

It is therefore from this infinite perception that all finite consciousness must ultimately derive; and on this eternal reason, this essential justice inherent in the universe, that all ethics must finally rest.

IV. But clearly there is a difference in kind, and not merely of degree, between our familiar finite forms of consciousness and an infinite consciousness.

Finite consciousness must always be intent on maintaining its limited integration, its individual personality, against the vast impersonal background from which it has emerged and to which it must some day return; for its own preservation it must therefore be self-assertive and to some extent exclusive. It must desire to live, and strive to continue in being; and it can only preserve its personal integration on precisely those terms of self-assertion and partial exclusion.

But an infinite consciousness can in the nature of things have no such desire or purpose, and fear no such loss of identity; for the universal cannot be exclusive, and that which is all-inclusive cannot be assertive.

In that sense the paradox holds that even the unlimited is conditioned by its own infinity. Action is necessarily finite and temporal, the expression and extrusion of an excess of energy within the organism; but the source of all action is above action and abstains from action. Infinity can know neither excess nor expression.

We can discover, therefore, no recognisable or definable distinction between energy and God ; but there do seem indications that this universal force, omnipotent and omnipresent, eternal and infinite, is conscious.

It is impossible, indeed, to give scientific demonstration, or even the lower standard of philosophic proof, to the proposition that energy possesses consciousness, and is thus endowed with the quality of simultaneity or instantaneity ; the only directly available evidence of the existence of universal consciousness is that conveyed by religious experience.

We are not, I think, entitled to dismiss this evidence without examination, but we are certainly not justified in accepting it uncritically. So much depends on the actual proposition we are discussing, and religious experience is so peculiarly liable to falsification, or, at least, misinterpretation, that a strict and even rigorous analysis of these records must yet be made before we can accept them as authentic evidence of admitted facts.¹

Alternatives to Universal Consciousness—The alternatives to the assumption that energy possesses consciousness, and consequently that energy is God, are three : (a) pure atheism ; (b) a God with limited consciousness—that is, a finite and partial awareness comparable to our own ; and (c) energy that is perpetual and eternal without being simultaneous and conscious, and therefore a wholly unconscious God.

I must confess that, probably from some defect of mental equipment, I find these very difficult propositions.

As to the first : atheism is necessarily a negation, and can only be satisfactory on the assumption that there is nothing to be explained. That assumption is contradicted by the whole evidence of nature, which postulates a rational universe and therefore a rational explanation ; and even as an abstract intellectual proposition, it seems untenable.

As to the second : that the one limitation of God should be in the field of consciousness seems contrary to reason and

¹ Chapter 6, Section 3-4.

even probability. And it is, moreover, at variance with all religious experience which, for what it may be worth, bases itself everywhere on the immediacy of a conscious God.

The third proposition, which assumes an unconscious God, is in effect the Immanent Will of Philosophy.

The Immanent Will is pictured as blind, deaf, and unconscious—blind alike to the beauty and the misery of the world, deaf to its ceaseless discord of sorrows and its occasional songs of triumph, unconscious even of the purpose which yet it steadfastly fulfils. It works on passionlessly, aimlessly, endlessly; its living fragments, split and scarred and bound with an intolerable memory of a remorseless past, are always passing through the gates of life and death. Slowly they learn from experience, discovering sense and emotion and consciousness and intellect from the struggle; and as we see in life the unconscious striving to express itself in the conscious, so a consistent philosophy figures by analogy that the whole unconscious Will may itself in time progress. If such were indeed the aim and trend of things, then the awakening of God from slumber—and it is said that God stirs already from his sleep in our hearts—to consciousness and emotion would be the beginning of the fulfilment of the purpose of the Universe.

This is not altogether an ignoble scheme. It has influenced and attracted many thinkers, and it may seem at first to possess partial validity as an explanation of the method and the way of things. But as a solution of the real problem it is hopelessly inadequate; for the pseudo-god of its construction is not so much a first cause in eternity as a secondary and derivative consequence in time. And of all the gods that man has made such an emergent and adolescent God must be the most incredible.¹

Inadequacy of these Alternatives.—If, then, we reject these alternatives as unsatisfactory, we seem driven to the assumption that universal consciousness, inherent in a universe of

¹ The doctrine of Immanent Will is a derivative or variant of the theory that God is imprisoned in matter and struggling to be free. Apart from other objections, this idea becomes untenable when we realise that matter is a singularity, not a chief constituent of the universe.

energy, and therefore precedent to space and time, is a possible, perhaps even a probable hypothesis.

And it is in fact not very difficult to conceive that a form of consciousness may exist superior to our own, at least in the sense that its superiority to space is no longer limited and local like our own, but general and universal ; and in that case it must also be superior to time, which ultimately depends on the passage of light through space. And if superior to time, then it must be eternal.

Against this it will be urged, of course, that the only forms of consciousness we know are personal, and that all personal consciousness has a definite physical and chemical basis which is necessarily limited in space and time.

The objection is valid but not fatal. The fact that we have no knowledge of any consciousness without personality does not prove that no consciousness can exist without personality ; it proves, indeed, no more than that we ordinarily perceive no such consciousness.

But personality may be, after all only the channel through which the river of consciousness flows ; it does not follow that the river contains all the water that there is. The stream cuts the channel which binds the river ; physical descent conditions finite consciousness. Without the channel there can be no river, but the water which forms alike the source and current and destiny of the river existed before the stream cut its way through the soil, and would still exist were there no river at all.

Its passage as a river from cloud to ocean may be but a transient and partial phenomenon of the scheme of things. The analogy must not be pressed too far, but consciousness is always a manifestation of energy, and it can hardly be assumed as axiomatic that the only consciousness existent in energy is that which we thus recognise as personal.

The bulk and element of the universe is impersonal, and if there be any consciousness which animates, moves, and controls this vast impersonal universe, then it must evidently be an impersonal or super-personal consciousness ; since

otherwise it would again be finite and temporal, and a finite and temporal God is a contradiction in terms.¹

But again it will be argued that (with the exception of religious experience, which is not always trustworthy in content, report or interpretation) we have no definite knowledge of any such consciousness; and that since the only forms of consciousness we know are personal, the sum total of what men have called the spiritual world is no more than that which we thus perceive.

It may indeed be so. In that case men have deceived themselves by constructing something more wonderful out of their imagination than the real world affords.

But we know that the real physical world is very different from the flat central earth and moving sun and the few thousand stars of which our eyes inform us, and on which ancestral astronomy and religion founded its preliminary and inadequate cosmos. There is, therefore, no logical reason to suppose that the essential spiritual aspect of the world, of which we are gradually becoming aware, is confined to the forms of consciousness we perceive around us.

The physical world is enormously greater and more complex than our perception of it; there are far more rays of light and sound than we can ever see or hear. But so also must be this hypothetical spiritual universe of conscious energy, of which the physical world forms the lesser part.

The Nature of Universal Consciousness.—But these arguments have brought us within range of a crucial difficulty.

Consciousness alone enables us to continue in being; without consciousness we cannot exist. But finite consciousness is stamped by ancestral use, and adapted to the need of the organism. Where a complex and active form of consciousness is required, as in the case of man, a complex and active form of consciousness is evolved; where a simple and passive level suffices, no more than a simple and passive level is attained. And where the organism can remain in

¹ An idea is always our selection from reality, and our idea of a personal God is merely our selection from impersonal reality.

being without any apparent consciousness, as in the case of rock and stone, then no consciousness is developed.

Now it is obviously the fact that the universe exists and continues to exist. And we must therefore assume that if it has an inhabiting consciousness at all, that consciousness will be adequate to its needs. In that event it can hardly be less than a universal consciousness.

But the above analogy indicates that if an inhabiting consciousness is not essential to the continuance of the universe, then no inhabiting consciousness will exist.

Now I have already admitted that I find it difficult to conceive that this rational and ordered universe could exist, or continue to exist, without an inhabiting consciousness, nor can I persuade myself that this difficulty is entirely due to the limitations of an admittedly very defective intelligence. Indeed, so far as I am capable of judging my own mental processes, this appears to me a rational proposition and a credible hypothesis ; it is supported by religious experience, and at least not disproved by scientific evidence.

But if the universe does possess this inhabiting consciousness, then presumably the same or similar indications to those which compel us to postulate consciousness in an animal, and permit us to draw deductions as to the character of that consciousness from the behaviour of that animal, will afford their testimony in the case of the universe also. We deduce the character of a living organism from its actions; and we should be able to deduce something of the character of this supposed universal consciousness from the universe in which it manifests itself.

Unfortunately, knowledge is too limited to allow us to draw more than tentative conclusions. We are directly aware only of part of the spatial and temporal aspects of the universe. We can therefore only be indirectly aware of its infinite and eternal aspect.

But the existence of this universal consciousness, such as has been postulated as necessary if the condition of simultaneity in eternity is to be upheld, seems to involve certain consequences.

In the nature of things, absolute and universal awareness can have neither memory nor anticipation, since past and future are both present to it. Nor can it have imagination, since everything must be within its knowledge. Neither does it seem possible that it can have will or purpose in any ordinary sense of the word, since both imply time and process.

These may seem grave difficulties, and by some they will certainly be regarded as fatal.

It is true that we may easily strip our hypothetical God of memory and anticipation, since universal consciousness would regard these faculties as subsidiary and contingent properties of a more restricted condition than its own—a kind of blind man's stick which humanity uses on its stumbling march; while imagination is obviously the product of finite intelligence, striving towards a larger vision of the infinite.

But to postulate a God destitute of will or purpose, and therefore indifferent to good or evil, will seem to many a pessimistic, and to more an impious and immoral conclusion.

But in fact it is not so. And the fact that it is not so has been tacitly admitted, with reluctance indeed and regret, by many great authorities on religion.

Our current gods are the mirror and reflection of ourselves. The malignant deities of early religious thought were natural deductions from human insecurity; the later theory of a beneficent purpose was no more than an acknowledgment of human advance—God was good because man prospered.

But that simple and attractive proposition would no more support the facts than its predecessor. That the wicked flourish, that the righteous suffer, that evil abounds, that good does not always triumph—these things are the commonplace of the creeds and the despair of the moral theologians, who strive to reconcile the alleged beneficent will of omnipotence with the visible contradictions and limitations, a scheme inexplicable on these assumptions.¹

¹ Cf. Newman, in an illuminating passage of the *Apologia*: "the tokens, so faint and broken, of a superintending design; the blind evolution of

The hypothesis that a beneficent purpose is concealed beneath the strife and cruelty of nature has taxed faith to its utmost ; and some have sought, and even found, their insubstantial proof in the existence of beauty. But beneath the superficial beauty of the world lies ever the tragedy of its suffering.

St. Augustine, whose passionate appreciation of loveliness in landscape and music and woman warmed the chill garment of puritanism in which he sought to cloak himself, could not see the tragedy for the beauty ; but the more sombre vision of his master, St. Paul, saw the tragedy rather than the beauty when he wrote that "the whole creation groaneth and travaileth together in pain." Is it a ground for faith that the beauty sometimes hides the suffering, or merely another example of the limitation of our perceptions ?

There are times, indeed, when suffering seems the very essence and not the secondary consequence of existence ; the proper badge of all our tribe. Perhaps few of the world's nobler spirits have escaped this sense of mystery and sorrow at the heart of things ; the sum of existence does not seem to add up right, our sense of ethics contradicts the facts of life, and we see visibly before us the whole creation travailling in the toils of circumstance and unfulfilled desire.

And if some shadow of the beauty of the spirit seems to touch and at times transfigure the too gross texture and the suffering of this physical world, it is nevertheless difficult to believe that it is merely an excess of pity which overpowers our judgment as we regard the oppressions and the apparently useless miseries around us ; nor does our sense of the unintelligibility and insufficiency of things seem always wholly an illusion.

Suffering indeed is often the consequence of sin ; or at what turn out to be great powers of truth ; the progress of things, as if from unreasoning elements, not towards final causes." And Gore : "The only very difficult dogma of the Church is the dogma that God is Love."—*Belief in God*.

Buddha seems to have held that the Eternal could have neither will, desire, nor purpose ; since the extinction of individual desire was, according to his teaching, the only way to attain eternity.

least of a wrong way of living. But again the doctrine will not fully fit the facts ; for suffering is also the consequence, and seemingly a permanent and inevitable consequence, not of sin at all, but of the struggle for life and the increase of perception—a by-product of the tangled path of physical and mental advance. Yet ultimately it is the progress achieved through this struggle and by this suffering that has led us to where we now stand—consciously on the threshold of a spiritual world of whose existence we become increasingly aware, but whose true nature as yet escapes us.

Good thus comes out of evil, evil turns to good ; and ethics itself becomes a study in paradox.¹ The contradictions are, in fact, insoluble by the accepted theological scheme, and the quicksand is impassable by the broken road of a beneficent purpose.

The conclusion is irresistible. Man destroyed the malign gods of his invention when the too evident contradiction of the facts made the theory insupportable ; the angry deity who demanded propitiation and sacrifice vanished as the world advanced. But the beneficent god of human hope has also been weighed in the balances and found wanting. Tested by experience, which is all we have to go by, the one theory is as inadequate as the other to explain the scheme of things. The true God is something other than this.

Yet of one thing at least we may be certain. It is a rational universe ; and, therefore, if there is a God at all, there must be a God of reason. Now a God of reason is necessarily a God of justice.

But strict justice is passionless and austere. It neither

¹ This is clearly admitted in the New Testament : " If ye, being evil, know how to give good gifts unto your children." (Luke xi, 13).

Inge remarks that " If we could see the world as God sees it, it would still be, as on the morning of creation, very good." Possibly ; but those who know the world best will be least likely to deny the reality of either good or evil. Those qualities, however, exist in the will, and apparently nowhere else. Evil, it is true, may be due to defect of will or intelligence, the fact that we do evil and choose evil may be merely a proof of human weakness or stupidity. There is an attractive parable of Zoroaster that good is conscious that evil exists, but evil unconscious of the existence of good.

God, says Erigena, cannot be called goodness, for goodness is opposed to badness, and God is above these distinctions.

loves nor hates, resents nor extenuates ; but holds the scales in an even and indifferent balance that is swayed neither by sorrow nor anger, and knows nothing of mercy or pity, of sudden wrath or capricious intervention.

The true God is, therefore, neither malign nor benevolent, but indifferent and just. Not love but justice is the emblem of divinity ; the righteousness of God is no less, but also no more, than pure justice.¹

Another line of argument will bring us to the same conclusion.

The Will of God.—Our conception of the will of God is obviously no more than the magnified shadow of human personality, in which will and purpose are necessary, and, indeed, vital to the power of living ; for when the will fails, the power of living fails—cessation of desire means death.

Yet even in that dimension the comparison breaks down. We only use our limited power of will to get more power ; but if we had all power we should not find it necessary, and indeed, it would be impossible, for us to use it. Now God is by definition all powerful.

In the same way a poor man uses the money he earns in order to live, and a rich man uses it to get more money. But the richer he is the less he can use it directly, and the more he lets it be used. If all the money in the world belonged to one man, he would be unable to use it, but he would have to let it be used, or it would be utterly useless.

Now God must be precisely in that position. We use our limited energy and consciousness actively in order to continue living. But universal energy, whether conscious or not, can only let itself be used.

If that be so, the old dilemma of the schools, whether God is action or thought, scarcely has much substance. Universal energy and absolute awareness may in one sense be

¹ There is certainly much injustice in the world. But this is because men are ruled by their passions, not by reason ; and there is neither good nor evil apart from living purpose. A stellar collision in space, for example, or an earthquake in an uninhabited district, is neither good nor evil.

But life on the whole is just. Indeed, that is the great trouble with life, that it gives us strict justice and no mercy. This is evidence of the justice, not of the love of God.

pure action, because the source of all action ;¹ but precisely because it is the source of all action, it is not itself active, and is therefore eternal contemplation ; without will, desire, or purpose.

But the smooth progress of this difficult argument is here interrupted by a formidable obstacle.

Any study of human will shows that purpose is less than consciousness—a selection not merely from reality, but from the percipient's awareness of reality. Now this limitation of purpose to something less than the total content of consciousness seems inherent in the very nature of the case. Since will must always be selective, there can be no infinite will ; but can we find any ground to suppose that a finite and therefore operative Will of God exists within that infinite consciousness ?

It may be so ; there is no lack of evidence. Stars and planets exist, we know that they exist, and their majestic procession and orderly mechanism continually impress us. Do not these, it will be said, furnish evidence of an operative Will of God ?

The inference, I think, is valid. Stars and planets furnish evidence of the physical world as it exists, and this must be considered evidence of any operative Will that exists ; for the universe as it exists cannot be contrary to the Will of God.

Further, the regularity of physical and cosmic processes seems to indicate purpose ; not necessarily an ethical or aesthetic purpose, nor yet " one increasing purpose," as the poet suggests, but at any rate steadfast continuity of purpose. And there is also direct evidence, which we can hardly disregard, that the course of evolution is pre-ordained ;² and many will accept this as sufficient proof of an actually existent and operative Will of God which far outweighs any theoretic argument to the contrary.

¹ Cf. Aquinas, " God is Pure Action ; " following the Aristotelian definition of God as sheer energy. And also Philo, less successfully : " God ceases not from action : as to burn is the property of fire, so to act is the property of God." But Philo hardly escapes the suggestion of time.

² Chapter 2, Section 1.

Moreover, the physical universe is a mechanism, or series of mechanisms. Now all experience shows that the existence of mechanism is an invariable indication of intelligence—either within the organism, as in the case of living beings, or behind the machine as its builder or director. And this rule is so universal that we can hardly assume its one exception to be in the physical universe ; or that intelligence is here, and here only, divorced from purpose.

Again, a mechanism always expresses the idea of its designer, for structure follows use and tacitly confesses purpose. Now the visible worlds are demonstrably a selection of the whole universe, and their very existence seems therefore to imply selection, and consequently purpose and design.

The argument, however, cuts both ways. The amount of substance as compared with the vastness of space in which substance exists is as a few drops of water in the ocean ; the physical universe is so small a part of the whole universe that it may be merely a by-product or waste element discarded from some ultimate and unknown end of the spirit. But in either event, whether the physical universe is the selected or rejected portion, the significant or insignificant element to the Almighty, its existence seems clearly to testify to purpose, and therefore to a divine but finite will operating within an infinite consciousness.

But what that Will may be is another matter. Purpose implies selection, which implies rejection, which implies waste ; and it is difficult to associate waste with an all-inclusive entity. Moreover, Will in any intelligible sense known to us can only apply of a subject towards an object, which it desires to influence or control ; it is inseparable from the idea of pursuit and possession. But when the subject is all-inclusive, and contains the object, Will in our sense of the word cannot exist.

In any event, there can be no absolute and universal purpose ; and if God has a purpose, the small proportion of the physical to the total universe seems to suggest that it may be something other than this physical universe. But

in that case we must conclude, I fear, that it is something outside human knowledge or understanding ; and we can say no more than that the Will of God must be the universe as it exists, because the universe as it exists cannot be other than the Will of God.

It is true that men have often identified their own will with the Will of God.¹ But they have deceived themselves ; if such a will exists, it exists in other dimensions, and for other than these contradictory ends. Life is a very small part of the universe, and a God concerned with human affairs would have extraordinarily limited interests ; the Will of God may conceivably be cosmic, but we do ourselves too much honour if we conceive it to be individual.

In that sense at least, and so far as we are concerned, it is neither active nor passive, neither malignant nor benignant, neither good nor evil ; but rational, silent and just. The true God being omnipotent, can never intervene ; but being omnipresent, is always accessible.

For these deductions do not in the least deny that immediacy and accessibility of God on which all religious experience insists. Indeed, in that respect they tend completely to confirm the testimony of the saints. Every one of that great cloud of witnesses affirms that knowledge of the spiritual mysteries can only be attained by long and arduous endeavour, and unremitting abstinence and prayer. But a universal God must be an accessible God, and that which is everywhere present must be discovered—it will not discover itself. “ Seek, and ye shall find ” implies that those who do not seek will not find.

To those who knock the door of perception will be opened, but those others who pass by will not even know

¹ A curious catalogue might be compiled of men who have carried out the Will of God as they understood it. Inquisitors have persecuted, and assassins have murdered in the name of the Will of God ; and both have been blessed by Popes for doing so.

And the German Emperor told Ambassador Gerard, “ He knew Germany was right, because God was on their side, and God would not be with them if they were wrong, and it was because God was with them they had been enabled to win their victories.”—*Letters of Colonel House*.

that the door is there. The insufficiency is in ourselves ; the veil of Isis is within us.

It is true that men have hitherto refused to tolerate the impartial and indifferent God of these deductions ; it is too remote from their desires. But we read our fragment of things backwards, discovering gods that do not exist, and blind to the true God that does nothing but exist.¹

Yet to this God we must ultimately come ; for the whole evidence of nature shows that, if any God exists, that God must be both rational and just ; while the intimate assurance of our minds persuades us that, within the limits of our consciousness, we are free. But only by assuming an indifferent and accessible God can we postulate divine justice and human liberty—a God that judges every action on the instant, but whose service is perfect freedom.

The true God is eternal ; and therefore neither creates nor destroys, loves nor hates, rewards nor revenges.² We create and destroy, love and hate, reward and revenge ourselves ; these things are part of the temporal process in which we live and move, but it is in the eternal that we ultimately have our being. The visible matter of which finite and conscious personality is built integrates and disintegrates in time, but the invisible energy of which these to regulate and transitory forms consists is increate and within eternal in eternity.

But religion succeeds, says Inge, not because it is true, but because it implies worshippers. A hard but true saying ; the idea of an impersonal God fails to appeal because it is necessarily indifferent to personal waste ; and no religion will fail if it is untrue, precisely because inclusive of local needs, and local needs change with local circumstances. The truth can ultimately survive. It may sound harsh and even repugnant to those who have which it desires in an easier faith, and ascribed the consequences of from the idea of the special providence or the just indignation of an subject is all-inclusive silence of God. But the most moving tragedy in history bears mourn- sense of the word perceived the existence of God, Christ perceived

In any event, the Calvary. Through the long agony of the trial purpose ; and if God had evoked response, the prayer in Gethse- when nailed to the cross, it seems certain that the physical to the effective intervention of God. His sublime shed with the awful words : " My God, my may be something other than me ? " and the terrible realisation of that the ages with the muted echo of lost hope.

CHAPTER V

THE ULTIMATE NATURE OF CONSCIOUSNESS

IN the phenomenal world as we know it, three different types of consciousness may be distinguished by ordinary observation. There is first the faculty of response, which is universal. Secondly, the simple varieties of awareness, which we see in the latent or passive consciousness of vegetation and the lower forms of animal life. And thirdly, the active and intelligent consciousness which distinguishes the higher animals.

It is evident that these three types of consciousness represent three successive levels or ascending stages of a faculty of response which is universal ; and also that these differences in the quantity of consciousness imply in turn a similar difference in quality. The problem then arises of the true nature of these manifestations, and the ultimate character of these various types of consciousness.

Duplex Character of Consciousness.—All the types of consciousness we know are essentially an internal awareness of external things. There is no response within the organism unless it is excited from without, nothing in the mind that was not first perceived by the senses ; and if the external stimulus is withdrawn the internal consciousness of the organism soon lapses.¹

All known consciousness, then, exists within an organism or body that is conscious. But all known consciousness is derived from without.

¹ Cf. the fact that many animals fall asleep almost at once when darkness comes on, as in an eclipse. This suggests that the individual balance in hand of consciousness is not very great. (It also indicates that below the human level there is no real perception of time, apart from light—see chapter 3.)

This apparent paradox and seeming contradiction demands attention and analysis.

1. The universe manifests itself everywhere under various forms of force or power travelling at different rates of motion in a medium of which we know nothing save that it exists. These forms of force or power are either organic and slow-moving or inorganic and fast-moving.

Now any known force or power, whether organic or inorganic, being once set in motion, would of itself continue to travel in the same direction for ever. But when it meets an obstacle or opposing force obstruction is caused, and the angle of direction of both forces is changed. The obstacle reacts or responds to the stimulus or vibration received, and absorbs (or in some cases rejects) it. Friction is set up, and heat released.

And it is precisely at this point of contact and absorption of two colliding forces, that consciousness appears.

This statement, however, obviously requires two limitations of definition.

In the first place, the collision of two organic forces travelling at moderately high rates of speed means the destruction of one or other, possibly both ; friction occurs and heat is released, but no recognisable consciousness is produced from their violent contact.

And in the second, the contact of an inorganic force or stimulus with an organic object incapable of absorbing it fails to produce any recognisable consciousness whatever. Response exists, but it takes a negative form ; the stimulus is repelled and rejected, not absorbed; as in the case of an echo thrown back from a wall.

But when an inorganic force or stimulus travelling at a high rate of speed meets an organic force or object travelling at a lower rate of speed which is capable of absorbing it, the result is an affirmative response, the absorption of the stimulus or vibration by the organism, and the production or perpetuation of a type of consciousness adequate to the organism or vessel that contains it. The nature of consciousness therefore depends on the amount of stimulus

absorbed and the character of the organism which absorbs it.

Consciousness is thus a result, not of the collision of similarities but of the contact of dissimilarities, one of which responds to and absorbs the other.

2. *Its Real Unity*.—Consciousness as we know it is consequently always an affirmative response and reaction which occurs at this point of contact between two dissimilar and opposing physical forces ; of which one is the slower-moving obstacle or organic vessel that receives and absorbs, while the other is the faster-moving inorganic stimulus that is received and is absorbed.

It is a product of the meeting and fusion of two diverse physical and chemical elements, and we must therefore conclude, at least provisionally, that it is physical and chemical in character. Consciousness is not indeed phenomenal, but it is continually influenced by the phenomena it observes. It is true, of course, that the business of organic life is motion and matter, whereas the business of consciousness is observation of motion and matter ; ultimately, therefore, life is action, whereas consciousness is contemplation of action. But consciousness is so intimately associated with the physical and chemical constituents of life, and it approximates so closely to the level of vital activity, that in its normal functioning we must regard consciousness as physical and chemical rather than spiritual in character ; a thing which is different, but not fundamentally different, from other forms of energy in motion. And this conclusion is reinforced by the fact that we can apply the energy we absorb either to physical or mental action ; but if there is an excess of physical action there is a deficiency of mental action.

But since part of the stimulus is accepted and part rejected by the organism, it follows that these finite and local forms of consciousness have, and must always have, something of friction and struggle in their origin, and something also of co-operation and absorption in their nature.

But the friction and struggle are for the most part external to the living organism, whereas the co-operation and

absorption are wholly internal. And it is clear that where friction and struggle predominate—as in the violent collision of organic bodies or the unreceptive and negative contact of inorganic stimulus with organic body—consciousness will not appear; it can only exist where co-operation and absorption are greater than the friction and struggle.

Consciousness is therefore a dual combination, but it must be a dual combination that yields a unity, at least a temporary unity, of result. Consciousness is always, and must from its very nature be, a unit—in the case of finite consciousness a selective unit of limited power, that strives always to maintain its unity by selecting only those elements which it can absorb, and rejecting those it cannot absorb.

3. Individual consciousness is knowledge within of things without, and the amount of knowledge within is in exact ratio to the perception and absorption of things without.

Individual consciousness can therefore be neither wholly internal and subjective, since it is continually fed from without and cannot come into being or continue to exist without external stimulus; nor yet wholly external and objective, since it is indubitably the property of the individual possessor, and could not exist in its personal form without that individual. It relies always on experience, which is objective, but it must interpret (or misinterpret) that experience in the scales of its own individual reason, which is subjective.

These mysterious and complex relations, which constitute the philosopher's problem of knowledge, evidently demand further investigation and definition. But it is clear that finite consciousness as we know it must always have this duplex origin beneath its achieved unity of character—it is invariably the joint product of an organic subject continually stimulated by an inorganic object. Without that contact and co-operation individual life and consciousness cannot exist.

4. *It is transformed, not created.*—But it is also evident that these finite forms of consciousness are not so much created at the point of contact, as locally evoked trans-

formations and escapements of previously existent energy which has accumulated and is released at that point. And every form of individual consciousness thus resolves itself into a local concentration of energy, which was latent either in the original stimulus or the absorbing organism, or both, but which only becomes manifest at the point of contact between those two forces.

The original stimulus (as, for instance, sunlight) follows the straight line of least resistance until its angle of direction is obstructed by contact with an opposing organism (as, for instance, the earth) which breaks up the light and absorbs it. Now it will not be suggested that either sunlight or the earth had no existence before their mutual contact; yet from this contact and combination of fast-moving inorganic stimulus and slow-moving organic vessel which absorbs it spring eventually all the manifold forms of life and consciousness on this planet.

5. Heat is only released when contact occurs between two opposing forces; friction is set up, and the body with the lower temperature absorbs the heat released from the body with the higher temperature, until equilibrium is established.

We have already seen that consciousness has a similarly dualistic character. It is in fact only when heat is released from the contact of the sun's rays with organic matter that life and consciousness as we know them appear.

It is clear, then, that the rapidly-moving inorganic energy, which proceeds from the sun, contains the active element in this duality of life and consciousness; the slow-moving organic matter contains the passive and receptive element. The one is, as it were, the male that generates; the other the female that gives birth to these finite types of life and consciousness.

6. *Character of the Living Organism.*—The living organism, the passive or feminine element in this familiar combination, is therefore essentially an instrument or machine for the capture and utilisation of inorganic energy, which it absorbs, and converts into consciousness according to its needs.

Manifestly this living instrument presents three different angles of approach.

A.—Chemically it is an aerated amalgam of earth and water, which is extraordinarily susceptible to and receptive of inorganic stimulus.

B.—Physically it is a sentient organism for the absorption and conversion of energy. It must be maintained at a certain level of temperature if it is to work efficiently; its functions and history have given it a certain mechanical structure, and ancestry times it in advance for a certain average duration. Like other machines it may be wrecked by violence or misuse before it is worn out; but in normal circumstance it will function for the period dictated by ancestry and no longer.

C.—Psychically it generates as much consciousness as is required to fulfil these functions, seldom much less or much more. But whereas physically its tendency is to the maximum rather than the minimum production—in other words, it breeds beyond the limit of subsistence—its psychical tendency is the exact opposite. That is to say, it inclines to the minimum rather than the maximum production of potential consciousness; a fact which indicates that the living organism is nearer the physical than the psychic level of energy. In other words, it is more material than spiritual.¹

Further, the living organism resembles other machines in that it cannot readily or permanently accommodate more than its customary content of power. The great personality who absorbs more energy than his fellows also radiates that energy among his fellows; and there is a mass of evidence to show that an excess of energy retained in the individual organism produces ecstasy or other abnormal psychic conditions.

It is this economy in the generation and expenditure of consciousness, combined with the incessant and necessary

¹ It is obvious of course, that peculiarities and defects in the individual machine produce peculiarities and defects in the generation and functioning of its consciousness; as in the case of idiots, lunatics, and mental defectives. These exceptions are here disregarded; the general statement above refers to normal living creatures.

repetitions of life, which accounts for the great territory of instinct as compared with the small province of intellect.

This law of the minimum generation of consciousness required to maintain life is of fundamental importance in biology and psychology. We are persuaded that our individual consciousness cannot die, although we have nightly evidence that it can temporarily vanish in sleep. Past function in fact determines the structure of the living machine, but in the long run physiological structure also tends in turn to limit and direct the mental function and psychic capacity of that particular machine. The individual follows ancestral type, and generates a similar form of life and consciousness.¹

Some living organisms are obviously of higher power than others—that is, they capture more energy, or put it to more intelligent uses. Where energy remains latent or passive within the organism, consciousness remains latent or passive; where energy becomes active, consciousness also becomes active and intelligent. Consciousness in our experience is always the summit point of energy in the organism, and on the extent of this awareness within of things without depends ultimately the rank of that particular organism in nature.

7. The individual organism, then, captures certain elements of energy and converts them to its own purposes; but it is necessarily dependent on the environment in which it exists for the particular stimulus it absorbs. Water, for instance, which does not conduct light as efficiently as air, is less favourable to conscious life than air, and therefore the intelligence of aquatic life is on a lower level than that of terrestrial or aerial animals.²

Actually, therefore, the living organism creates nothing; it merely intercepts, transforms, and eventually expels some

¹ Those who are inclined to set too high a value on the principle of individuality should reflect that the essential form and even the minor idiosyncracies of the living organism derive from physical ancestry, while its animating principle comes from without, in the light and air which it absorbs.

² Similarly, the terrestrial animal which avoids light is of retrograde type.

part of the vibrations or energy that it encounters and absorbs. We say indeed that the brain secretes thought ; but in fact it only secretes some part of the energy which the bodily machine has received from without, and transforms it into individual consciousness and thought. Or, if we prefer the simile, the individual is a bank which accumulates and gives out energy, and turns some part of that energy into consciousness.

8. The living organism continually absorbs, and as continually expends, energy ; it lives, and can only live, by drawing power from its environment. If life is an end in itself—a proposition which seems self-evident until critically examined—the attainment and absorption of power is the only means towards that end.

It is not, as history shows, so much in the attainment of power that men fail as in the use or misuse to which they put it. But in fact we all seek power ; for we shall see later that even the mystic, that rare being who professes to renounce power and who certainly despises the more vulgar forms of power, in the end only seeks a different kind of power from the rest.

9. Energy or power, once absorbed by the physical organism, may lie latent indefinitely, like heat in coal, until sufficient external stimulus is applied to overcharge the instrument and release its stored energy.

This is evidently the case with inanimate matter, but the living organism with active consciousness, which has reached a higher level and is normally rather overcharged with power, seldom retains its energy latent or unused for long. It continually gives out and as continually absorbs energy ; and it is this more dynamic flux and flow, like a lake that is constantly being filled and as often emptied, that constitute life and consciousness as we know it.

Most of us, at least in adult years, give out energy pretty much as we get it, without any large balance at the bank of life ;¹ and with the significant exception of the mystic,

¹ Not quite always, of course. The process of mental digestion may be prolonged, and an idea lie dormant for years before it seeks expression:

who often accumulates capital in contemplation that he does not expend in action, the ratio of current vital income and expenditure is generally kept fairly level.

The potential consciousness of the individual at any given moment is the current available surplus between past income and expenditure of energy ; the actual realised or working consciousness is, of course, usually much less than the potential consciousness, which may only function fully at some supreme crisis of life.

This even balance of vital income and expenditure accounts for the even continuity of temperature and consciousness in the normal individual. The continuity of life is secured by the regularised reception and absorption of energy, balanced (or nearly balanced) by the subsequent explosion or expulsion of superfluous individual energy. But the fierce hours of activity and expression, and the occasional long months of sluggishness which characterise some types of genius suggest that in these cases the periodicity of the living machine is less regularity constituted. When fully charged with energy, it makes efforts at supreme moments of which the rest of us are incapable ; but it is then exhausted for a time by excessive effort, for this high pressure engine is in turn incapable of the steady pull of the normal type.

10. Action is not the receipt but the expenditure of energy ; and therefore contemplation or absorption of energy must precede action or expenditure. Fatigue comes naturally when the individual expenditure of energy has been greater than the current income, and the power of the organism has fallen below the normal efficiency level. The body, like other engineering instruments, is a machine that functions only within certain limits of stress ; and from the point at which fatigue is felt by the individual, energy must still be received but expenditure reduced to a minimum.

Active consciousness, the summit point of individual

But this is rather rare. An idea which grows thus slowly may eventually dominate the whole organism, but in its origin it will hardly have great significance for the individual.

energy, therefore ebbs in sleep, which restores the small surplus balance of daily energy ;¹ but death occurs normally when that balance is finally exhausted. The living machine, like all machinery, works up to a maximum efficiency point and after a time begins to wear out. There is a gradual loss of elasticity within the organism which indicates a diminished power of absorbing stimulus ; and this is a sign of cumulative diminution of income and expenditure of energy as old age comes on, until ultimately the machine fails to function—there is a complete cessation of the power of receiving stimulus and energy, and consciousness eventually lapses altogether.

11. The problem of survival, which has so long vexed mankind, obviously depends on what remains to survive. After death the bodily machine goes to wreck ; earth returns to its original elements, and the energy it received in life is dispersed.

Stimulus is no longer received from without ; indeed death is in one sense due to the incapacity of the machine to continue to absorb further stimulus. But the stimulus which once informed it, and from which its consciousness was derived, cannot so wear out. It may be transformed or absorbed by another body ; it cannot be annihilated.

If anything survives it must be the remains or continuation of this psychic energy, which was during life influenced and directed by the individual organism that absorbed, transformed, and finally expressed it. And the real question seems not so much whether it survives, as whether it retains consciousness and personal identity. But at the moment we can only state, and not attempt to solve, the problem.

12. The living organism, then, is a machine that continually absorbs power. But its history shows that it cannot ordinarily absorb power beyond a certain point, when it becomes saturated and overcharged with energy which must be expelled.

This surplus energy leaves the individual in various ways.

¹ Actually we absorb less energy during sleeping than waking hours ; it is the cessation of expenditure that restores the balance.

A great deal, indeed the major part, of normal individual energy is spent in securing and digesting food; this is the heavy income-tax of life which swallows up most of our income. Some energy is expelled as a mere waste product—the excreta, excess of water, and exhausted air. And the varying remainder is expended in mental action—the expression of our wants and ideas in speech and thought. These activities last through life; other methods of expelling superfluous energy such as sexual activity, are seasonal, and decline with the middle years.

Still other expulsions of energy are psycho-physical, and much more rare and occasional; these are the luminous or pseudo-electrical phenomena recorded in history. The emission of sparks of light, transfiguration and the halo and tongues of fire of religious tradition, seem to represent a superfluity of internal energy that becomes luminous when it leaves the body.¹

These things occur during life; others, perhaps more frequent and familiar, are reported to happen at or after the moment of death. There can be little doubt that apparitions are an escape, and often probably a final emission of individual energy, released by the organic machine as it is running down.²

13. *The Stimuli that form Consciousness.*—The living individual, then, absorbs the power, at least an infinitesimal part of the power of the universe, in order to go on living. It cannot live without stimulus, which is merely another name for the elements of power we select as useful to our purpose.

But the stimuli which reach us are many, and our reaction to circumstance is composite. The living organism has a very limited power of discrimination and rejection,

¹ It is significant in this connection that a precedent condition is often a consciousness of light; which suggests that the mystical illumination is based on physical fact as well as psychic experience. Cf. the doctrine of the Shekinah and Isaiah: "The people that walked in darkness have seen a great light; and they that dwelt in the land of the shadow of death, upon them hath the light shined." And see Chapter 6, section 4.

² Apparitions are obviously not always conscious; apparitions of the living, for example. Chapter 6, section 1.

and therefore of freedom in the stimulus it absorbs, but some considerable freedom (which it does not fully exercise) as to the ways in which it expends that energy.

Obviously, however, it is the stimulus we absorb, not the stimulus we ignore or reject, that influences consciousness. The whole heredity of the mind is built up of the received and accepted stimulus of past generations, as ridges of sand on the seashore are built up by the tide.

The mind, therefore, depends on the perceptions of the senses; and the sense-organs, which admit selected varieties of power, are specialised forms of response to particular stimulus, or rather a selection from that stimulus. The greater the perceptions of the senses, the greater is the absorption of external stimulus, and the greater the internal consciousness of the organism.

The senses, then, select and admit energy, some part of which is turned to consciousness; but by the same token they also reject or ignore energy that might be utilised by a different type of consciousness.

And therefore it would be absurd to suggest that there are no other conceivable forms of consciousness than those which we perceive; for the living organism does not create consciousness—it merely receives and absorbs energy, some part of which it transforms into individual consciousness.

14. *Smell, Sound, Heat and Light.*—The various forms of stimulus of which we are aware demand more detailed discussion. We may consider them in an ascending series, as smell, sound, heat and light.

Smell, or the perception of odour, is the lowest form of conscious stimulus, apart from touch, the common parent of all perception. It attaches mainly to gases of low velocity and therefore of great persistence; odours are generally inert and consequently localised, with practically no power of motion. A smell, like smoke, is usually due to defective absorption or combustion—it is essentially a waste product, a minus quantity, an escape of gas.

It is true that scent in its sexual or religious aspect (when used as incense) may be extraordinarily seductive; but

it is often a sedative rather than a stimulus—the olfactory nerves quickly become blunted, and even the central consciousness may be overpowered by an excess of smell.

Sound, a more mobile and therefore a higher form of stimulus, in some respects resembles smell. Like smell, it can only exist in a material or atmospheric medium of some density, which it disturbs, but in which it is eventually absorbed. Smell never penetrates the upper atmosphere at all ; sound grows fainter as the pressure of the air diminishes, and the great inter-stellar spaces are scentless and silent.

Sound is thus, like smell, an escape, an explosion or expression of energy in a material medium ; and like smell again, it is the release of a higher power of energy that has been absorbed by an organism, transformed to a lower series, and is now in process of ejection and dispersion.

But sound, whether in its natural form of noise or its artificial form of music, represents a higher degree of energy than smell. It is never inert ; unlike smell, it travels fast—1,120 feet a second—and is invariably an explosion or expulsion of energy released under pressure.¹ Noise always results from a collision of forces ; even the perfect harmony of beautiful music is ultimately only a sequence of concerted noises.

There is both an upward and downward limit to our perception of noise, which in some cases may be merely an irritant—that is to say, a sound we would exclude if we could ; the more sensitive the ear, as every musician attests, the more easily is it irritated. After a time the ear may become blunted and insensitive to repetitions of sound, like the nose to smell ; but our capacity for absorbing noise is much greater than that for smell.

The fact that sound serves at once as a warning of danger and a vehicle of speech has given it peculiar significance among the senses ; but this must not blind us to its true

¹ Noise may indeed accompany smell, but the noise is a measure and consequence of the pressure of exploding gas, not of its smell ; the more inert odours move too slowly to make any noise, and sound is thus only an incidental accompaniment or rather precedent of smell. We hear the sizzle of a damp log on the hearth before its scent reaches us.

position. Sound as a stimulus is more active and therefore more rapid and potent than smell; but far less rapid and therefore less potent than light. We could exist in a world without smell, even in a world without sound; but without light and its accompaniment heat neither life nor consciousness could exist.¹

Smell and sound are therefore, in the last analysis, both minor forms of stimulus; light and heat are major forms of stimulus.

No sound reaches beyond our atmosphere, and every odour is ultimately dissipated or absorbed in its own neighbourhood. Sound and smell, then, are local and therefore occasional; light is universal. Sound and smell are terrestrial in origin and destiny, but light is extra-terrestrial.

The distinction is of extraordinary importance. Sound and smell both influence consciousness. But light causes consciousness, and without light no known form of consciousness exists.² We are creatures of circumstance, built in the main of earthen and local materials; but our consciousness—which the mystics call the divine spark—is neither earthen nor terrestrial, but universal.

Light, the major form of stimulus, derives from the sun, and is released on contact with ponderable matter. And this absorption of inorganic energy by matter causes it to expand, and prepares the way for those chemical changes which result in the forms of life and consciousness we know.

There is both an upward and a downward limit to our absorption of light, as of sound and smell; these are the limits that condition life and consciousness in our dimensions. But within those limits, it is always the absorption of light

¹ The hermit who flees to the desert, and the monk who insists on the rule of silence, want to get away from human interruptions—in other words, from sounds that irritate them; but they do not include light in their rejection of stimulus.

² In that sense at least Wordsworth is poetically true to the physical fact:—

"The soul that rises with us, our life's star
Hath elsewhere hath its setting,
And cometh from afar."

And the lovely and less hackneyed Spenser: the soul "is heavenly born and cannot die, being a parcel of the purest skie."

or its derivatives which creates or precedes the transformation of energy that we call creation ; it is always the cessation of absorption, or the expulsion of light or its derivatives, that destroys, or prepares the way of destruction.

These major and essential processes of absorption and expansion, creation and growth are silent and scentless. But the friction and conflict entailed, not by the processes of absorption and expansion, but by the expulsion and transference of energy from one body to another, set up the minor processes of sound, which is a lower power of energy than light ; and smell, a still lower power than sound. The presence of sound indicates a local inequality, an excess and explosion of energy released under stress ; and smell betrays the excess in inert and more degraded form.¹

15. *Stimulus alone is not conscious.*—We shall discuss later the significance of the different speeds of these various forms of inorganic stimulus, as affecting the general problem of consciousness. But the question immediately arises whether light, which causes consciousness, is itself conscious. We should not be justified in making this assumption.

Admittedly smell is a stimulus to consciousness, but nobody would suggest that smell is conscious. Sound is also a stimulus to consciousness, and often a direct expression of consciousness ; but it can hardly be maintained that sound is itself conscious. These lower and terrestrial forms of stimulus are therefore not so much consciousness as conductors of consciousness. Now the higher forms of stimulus differ from the lower not so much in kind as in degree.

The higher, like the lower forms of stimulus, are an explosion, an expression and expulsion of energy ; and this expulsion of surplus energy that has accumulated at one overcharged area obviously operates as a relief of stress at that point. The expulsion of light from the sun, of noise or

¹ Every living creature emits a characteristic odour. This is locally continuous ; the emission of noise is occasional ; the emission of light (at least visible light) very rare.

odour from an organic body on earth, even the expression of individual consciousness through speech and action, are all no less and no more than expulsions of overcharged energy which has accumulated at that one point.

It is not, however, the stimulus that is conscious; for consciousness in our experience is always the joint product of inorganic stimulus and an organic receiver of stimulus which absorbs it, and the stimulus appears to have no consciousness until absorbed by the organism which receives it.

16. *The Organism alone not conscious.*—The finite consciousness of our experience is an awareness either of substance or stimulus or (far more rarely) of the medium in which both substance and stimulus exist; indeed, so far as we can discover, there is nothing else for consciousness to be aware of than this unequal trinity of substance, stimulus, and continent medium.

This finite consciousness derives directly from the stimulus it receives, but the character and type of consciousness produced is determined by the individual organism which receives it. If it were not for organic substance, the inorganic stimulus would not become conscious. But if it were not for inorganic stimulus, the organism would never contain any consciousness at all.

The dualistic character of consciousness seems therefore complete; and we must conclude that neither stimulus nor substance, separated from each other, possess consciousness.

17. Are we then to regard consciousness as fundamentally and of its very nature dualistic—and this in a universe which experience and reason compel us to regard as fundamentally monistic? If so, we may find ourselves driven in the end to regard consciousness as a mere by-product and local excrescence and overflow of energy—and this in a universe instinct throughout with response.

These are grave difficulties, whichever view we adopt. And it is not to be denied that argument seems at first sight to favour the dualistic theory of consciousness.

A. It may be said that the very existence of action and

response argues a dualism of nature that reaches down to the heart of things ; for there can be no action without equivalent reaction, no vibration without something to vibrate against, no response without something to respond to.

And it is manifestly true that action and response are the basis of the world of events which we perceive ; for without action and response nothing could ever happen, there would be no events to perceive, and the world of space and time which our consciousness assesses would not exist.

B. Further, the conversion of one form of energy into another always involves waste and dissipation of energy ; and this is equally the case with the living and the non-living organism. The conversion of fuel into power involves loss of power ; of food into blood and muscle leaves excreta ; of muscle into action releases heat ; and the conversion of mental action into principles of thought and a considered philosophy involves, as every student knows, a waste of energy in pursuing wrong hypotheses. All purpose and purposive action, in fact, involve selection, rejection, waste and loss.

And however unwelcome to our pride the conclusion would be, it seems therefore possible that the whole of human consciousness and thought and purpose may conceivably be no more than an example of waste and dissipated energy, a mere by-product and casual side-issue of some larger natural process of whose scope and tendency we are entirely ignorant.

But on further examination this supposition will be found to fail.

18. *Consciousness always a Unit.*—There is no fundamental difference between organic and inorganic. Both are forms of energy, which passes readily from one to the other.

Now inorganic energy, or stimulus, is not itself conscious ; it must encounter organic living matter before consciousness is produced. Further, organic matter, or the living vessel that receives and absorbs stimulus, is not

itself conscious ; for if the stimulus is withdrawn, consciousness soon lapses.

It is the contact, combination, and fusion of these two forms of energy into one integrated unit that produces finite consciousness. But while this individual consciousness is made up of objective stimulus and subjective perception, it is aware of itself as a unit. The dualism of its construction becomes a unit of finite consciousness, and unity is always the true character of a rational individual consciousness. The physical source may be dual, but the psychic stream of consciousness must be one.¹

The true nature of consciousness in our dimensions is therefore always a unit that perceives, absorbs, and within the limits of the percipient organism, understands what it perceives.

But if it is always a unit in our dimensions, it seems highly probable, and indeed almost certain, that any other form of consciousness, whether greater or less than our own, whether local or conceivably universal, will also be a unit ; for although one form of consciousness differs from another in quantity and quality, in level and content and competence, in a rational universe its fundamental character will always be the same.

Now the universe as a whole is also neither a dualism nor an anarchic pluriverse, but an inclusive reality. It is therefore impossible that these two unities—of the universe and the elements of consciousness it contains—can be entirely distinct and dissociated from one another.

But response is a general characteristic of things, and

¹ There are, of course, numerous cases of split consciousness or dissociated personality. But these are pathological ; they involve temporary suppression of part of the personality, but even the section that survives or intrudes itself above the threshold still functions as a unit. All of us, or nearly all of us, have these sectional (and often ancestral) sub-personalities. But they are usually functionless fractions and submerged survivals.

That the psychic unity of consciousness built up on the physical dualism of origin is real need not be doubted. As water is formed of two elements, and is thus a dualism, but the dualism of hydrogen and oxygen becomes a real unity ; so is consciousness built up of a complex organism and a series of inorganic stimuli, but the dualism yields a real, if temporary unity.

response is the first element of consciousness. It therefore becomes difficult to regard consciousness as a mere by-product and local excrescence and overflow of energy. Response is too common, and consciousness too nearly related to reality, for us to maintain that proposition; indeed, the universality of response, and the peculiar characteristics which attach to consciousness, may even suggest to us that consciousness may yet turn out to be the ultimate reality.

19. *Difference Between Consciousness and Love.*—And in this connection it is natural to consider a claim advanced on behalf of another applicant. Love is for us the key to the golden gate of understanding; there can be no understanding without sympathy. It has therefore been suggested that the fundamental characteristic of the universe is love.

But this can hardly be. Love always arises out of division and seeks unity; where there is no division there is no love, only harmony. Love can therefore scarcely be the ultimate nature of things; since if the universe is a unit it can hardly love itself, while if it were a dualism one section could hardly seek (and for ever fail to find) union with the other.

If consciousness, on the other hand, is the ultimate reality, this difficulty does not arise. Whether finite or infinite, consciousness is always unity; and since the universe is a unit it can be conscious of itself as a whole, while if it were a dualism one section could still be conscious of the other.

Moreover, there can be no sympathy, and therefore no love, where there is no perception and no absorption of stimulus. Here active and passive meet, and current speech recognises their conjunction by saying that we are absorbed in a thing when actually we are absorbing it. Consciousness as we know it is always a union of stimulus and substance, of action and response, within the living organism. But we can be conscious of things we hate, although we cannot love things of which we are unconscious; and therefore love exists within and is less than consciousness, not conscious-

ness within love. Consciousness is therefore in the nature of things more nearly universal than love.

20. *Consciousness and the Infinite*.—It may, of course, still be maintained that action and response argue a dualism of nature that reaches down to the heart of things. But the objection is not insuperable.

Admittedly there is no fundamental difference between inorganic and organic, between stimulus and response; both are finite forms of energy, and each is convertible into the other. And it is clear that we live in a world of various motion, in which the more rapid forms of motion remain inorganic and the less rapid become organic; anything under a certain specific gravity broadcasts itself as stimulus, over that limit it concentrates itself as substance. It is the contact and conflict of this variety of motions which make action and response, and the world of time and events which we perceive.

But the formula as it stands is plainly insufficient. The universe is ultimately a unit, not a dualism. These actions and responses, and the contacts and conflicts which underlie events, are necessarily finite and local; there can be no events without the contact and release of opposing forms of energy. But both inorganic stimulus and organic substance must move, and consequently events must happen, within a medium which surrounds them and a unity which connects them; and this unitive medium, invisible, intangible, but inevitably existent, must be the very basis and framework of the universe we perceive. Action and response, stimulus and substance, are alike finite; but the medium which contains them must be infinite.

And similarly, we must postulate a medium in which events and the world of time exist. We perceive the event but not the medium; the interruption of the order, not the order itself. And we perceive this lesser category because we normally absorb energy in the shape of stimulus and substance—light and food—not the pure energy of which the medium must consist.

Now this medium must be eternity, and we are forced to

conclude that infinity and eternity are the same thing, the medium in which this local and phenomenal world of time exists, in which events are transacted, and from which action must derive.

• But only consciousness is aware of that which lies without the organism as well as within ; and any consciousness which reaches beyond this finite world must necessarily be infinite. Now if the universe is infinite it would seem that consciousness must necessarily be its ultimate nature (and not merely some casual excrescence or local characteristic) since organic matter is finite and only consciousness can be infinite.

And if the infinite is conscious it seems probable that light is the conduit which conveys consciousness from the infinite to the finite world. The consciousness of an organism, like the action and events of which it is made, must have an ultimate source from which it derives ; and as a pipe conducts water, but is not itself water, so does light appear to conduct consciousness. Unconscious itself, it contains consciousness, and releases it on contact with the organism that absorbs it.

It seems, then, that consciousness may prove the very stuff and substance of the universe. In that event it is transmuted to us through the pipe of light and time ; and it is this same consciousness, still further reduced in content and volume, in quantity and quality, by the limited perceptions of the senses through which it is absorbed, that eventually forms our individual awareness of the external world. For us it exists in life and time, but its ultimate root is eternity.

21. But this problem of the eternal and the infinite is finally concerned with a medium whose nature we do not yet understand, and with the essential properties of energy.

Now this medium and this eternal energy may or may not possess consciousness as an inherent property ; but if it does, and however it may differ in extent and in degree from our own, in one respect at least it must resemble ours. Consciousness is always *ad hoc* ; and as finite consciousness is aware of a phenomenal world, but not itself phenomenal,

so this hypothetical eternal and infinite consciousness, which could certainly not be less than its finite manifestation, would also be aware of the phenomenal world, but not itself phenomenal.

The external world of our perception changes, passes, and vanishes ; its essence is flux and motion. But the internal world of our experience persists ; it observes flux and motion, but its essence is neither flux nor motion. If consciousness is an inherent characteristic of energy it must persist, and all consciousness survive the individual ; but whether our consciousness remains individual is a very different matter. It may be one of the terms of the series that individual life and its accompanying consciousness drop out, but the essential elements of consciousness survive. The individual has derived his consciousness from without ; but while the individual ceases, the cosmic process from which that consciousness is derived persists.

And in this connection we may again recall the old comparison of consciousness to water. Consciousness is not phenomenal, and therefore the analogy must not be pressed too far ; but like water, it is a unit of dual elements, and the comparison to a stream that begins at its predestined point and follows an appointed course to its inevitable end is a natural one.

Moreover, water may exist in liquid, frozen, or gaseous condition, and pass from one state to the other. The comparison may remind us that consciousness may take the liquid form of intelligence or the frozen form of instinct, while accounts of apparitions almost suggest that under certain conditions it may function as a gas.

And again, water may pass from the river to the ocean, from ocean to cloud, raindrop, and river again ; but it is only individual during the brief moment when it is a raindrop. It is possibly the same with consciousness ; and as there is always the same amount of water in the world, although not always the same number of raindrops, so it seems likely that there is always the same total consciousness in the universe, but not always the same amount of

individual life. The individual forms of consciousness we know may be no more than the spume and spindrift thrown off by the general sea of consciousness.

It is admittedly more difficult to believe in annihilation than in survival ; there must be change, but there cannot be destruction. But that composite unit of territorial substance and extra-territorial stimulus which we call a living individual need not survive as an individual. And if all consciousness survives because ultimately there is nothing else but consciousness to survive, it is immaterial whether this is individual or universal—the drop of water or the ocean.¹

22. *A Universal Consciousness.*—The Universe, then, beneath its multitudinous diversities of appearance, is fundamentally a unit. Its obvious dualism of action and response, of organic and inorganic ; its hypothetic trialism of stimulus, substance, and medium may disguise, but cannot conceal its underlying unity.

All the energy of the universe is therefore ultimately one, and if the universe has any general consciousness at all, that consciousness must also be ultimately one. Moreover, it would seem that in the event of its possessing consciousness, it must be conscious of itself as a unit.

Now the dualism of stimulus and substance is a continuous phenomenon—the persistent division and endless reunion of inorganic and organic. Neither is conscious alone, but the two together make up finite consciousness. In our current experience, it is only through the union of the inorganic with the organic that consciousness can appear. But the universe includes both inorganic and organic ; and it seems that their contact and union must from its very nature produce consciousness.

For I find it difficult to suppose that a combination which produces consciousness in its local and limited aspect can be wholly unproductive of consciousness in its total and general aspect. If out of nothing, nothing is made, temporal consciousness can hardly come out of eternal unconsciousness.

¹ Chapter 6, section 1.

Consciousness as we know it is always the union of stimulus and substance. But since all stimulus and all substance derive from eternity, and eternity must be the source and union of all stimulus and substance that exists, it would seem that we not only may but in fact must regard eternity as being conscious; for we can hardly suppose that the eternal only attains consciousness after it has been first divided into stimulus and substance and then locally reunited.

If that is so, then this manifest dualism of nature ultimately conceals a real unit of consciousness; and we should have to conclude that consciousness was an inherent property of a rational universe, and unity the true character of a rational universal consciousness. But what the nature of that consciousness would be as yet remains obscure.

And since there is never any creation or destruction of energy, but merely transformation of form and substance: it must follow that the apparent waste of energy is not a real waste. What we call waste is merely energy not required or used for a particular purpose. All purpose implies selection and limitation, and all selection involves rejection and waste; selection and purpose are therefore marks of the finite and local. And that limitation must apply universally as well as individually. There may be a universal consciousness, but if it has any will, its purpose must be finite.

It must follow, too, that there is always the same amount of power in the universe, but differently distributed; and consequently always the same total of general consciousness although not always the same amount of active individual consciousness.

And although life is to us always a struggle, and therefore a balance and suspense of opposing forces, it does nevertheless produce a temporary synthesis and unity within the individual, whose consciousness is always a unit. Now if any general consciousness exists within the universe, it too must form a synthesis and unity in one ultimate harmony. For it is evident that the universe must be funda-

mentally a harmonic unit, since a universe divided against itself could not continue to exist. And if that unit is a conscious unit, it must ultimately form a spiritual unity in sovereign control of its material diversity.¹

But if this is so, it must again follow that this temporal and finite consciousness of our current experience cannot be a mere by-product and waste element of energy ; it is an essential constituent of universal reality. As such it must be capable of relations with every other form of consciousness, whether above it or below ; but we have yet to see what those relations may be.

23. Let us now look at this matter from another angle.

There is no question, of course, that consciousness exists. The real problem is—How does it exist ; how much of it exists ; and what is its essential nature ?

It is evident that consciousness is either a cause of matter ; a consequence of matter ; or it has nothing to do with matter.

The last assumption may be summarily dismissed. Every form of consciousness of which we have direct and continuous experience exists within a physical and material organism as an awareness of things without.

The second assumption, that consciousness is a consequence of matter, at first sight appears in some sort to be true. The type of consciousness generated by the individual or race depends on the physical and material constitution of the organism and its ancestors. Function determines structure, but racial structure in the long run conditions and limits racial consciousness, and individual structure in the long run conditions and limits individual consciousness.

But the assumption that consciousness is a consequence of matter is evidently not the whole truth. Every material organism possesses the faculty of response in greater or less degree, and response is the basis of all consciousness that exists in material organisms. But material organisms

¹ I have read somewhere a wonderful parable that God Himself was not sure He was the only God until He shouted into the void, " There is no other God but Me." When there was no answer to the challenge He no longer doubted.

devoid of life are also devoid of consciousness, and many living organisms exist below the level of active consciousness. Consciousness, in short, is the summit-level of the energy of the organism, but it is developed by the organism only as and when required. If, therefore, it is a consequence, it is not an invariable consequence, of matter.

Further, the stimulus that develops individual consciousness derives from without, not within ; indeed, we are only aware of things without because the primary and essential element of consciousness derives from without. Now the actual conductor of consciousness—light—is the least material thing we know. The more material the substance and its environment, the less the consciousness.

Finally, although sound and smell, the minor forms of stimulus, are often a consequence, they are not a cause of consciousness ; they influence, but do not originate it. Light, the major form of stimulus, is indeed a cause of finite consciousness, but only in the sense of being its conductor from another medium in which light itself exists. Light is therefore a direct cause of finite consciousness, but not its ultimate source.

The assumption that consciousness is a consequence of matter, therefore, although superficially plausible, is ultimately inadequate ; it does not cover the facts. Consciousness as we know it is always the response of a material substance to a less material stimulus ; and this stimulus seems in turn to derive from a wholly immaterial source. And thus by a process of exclusion we are consequently driven to consider the first assumption, that consciousness may be the cause of physical matter ; in which case it must be regarded as the inherent property or fundamental nature of the universe.

In that event consciousness is not, as it superficially appears to us, an endless series of individual divisions with an occasional and exceptional union when a new individual is born, but an over-spreading union with an occasional and exceptional series of individual divisions. This may seem a startling proposition ; improbable as it stands, and im-

possible to prove. Yet we shall find it confirmed by the facts so far as we know them, and by reason so far as we are capable of a rational judgment of known facts.

The living instrument consists chemically of air and water, with a few of the more common earths. But the combination of these terrestrial elements is not the whole individual—its inhabiting consciousness derives directly or indirectly from light, and is therefore extra-terrestrial in origin. Now light, the conductor of consciousness, exists everywhere, but only becomes visible in contact with matter; and it follows necessarily that potentially consciousness exists everywhere, but only becomes apparent in contact with the living instrument that absorbs it.

Without light there can be no consciousness in the living organism, and when the organism can no longer absorb light it decays and eventually dies. The consciousness of the living organism may therefore cease to exist; but light continues—it is merely not absorbed by that particular organism. And therefore the conductor of consciousness persists; and its prime source, this hypothetical universal consciousness that we have had to postulate, also continues to exist.

And it is significant that all mystical experience appeals ultimately to a universal consciousness, and postulates that this is the source of that divine spark within the individual which, in its interpretation, is the very light of God.

24. *Consciousness a property of Motion.*—This question of the possible existence of a general consciousness, however, forces us to explore the matter further.

Consciousness as we know it consists always in the response of an organism to external vibrations; in other words, in response to those particular vibrations or movements which it perceives and absorbs. The experience of all finite consciousness extends to and is aware of other things precisely in so far as it perceives them and absorbs them.

The organism, however, is not conscious without the vibrations which it receives, nor are the vibrations conscious

without the organism which receives them. It is not the division but the combination of these different forms of energy that ensures consciousness.

The conscious organism perceives and absorbs a series of external stimuli—that is to say, vibrations of energy in motion; and these perceptions and absorptions give it power to move, act, or speak according to its needs. In other words, the conscious organism perceives, absorbs, transforms, and eventually expels energy in motion.

Consciousness therefore derives from and transmits energy in motion. But it may be objected that consciousness itself need not necessarily be motion, any more than the mercury which registers temperature in a thermometer is necessarily heat. It is true, of course, that individual consciousness does in fact move with the organism that contains it, but it is clear that these movements are an expression of its energy, a superfluity and by-product of consciousness rather than the essential consciousness itself.

Let it be admitted, then, that consciousness as we know it is not so much motion as perception and absorption of different kinds of motion. But if there were no motion, there would be no perception of motion, and if no perception of motion there would be no consciousness of motion. But in that case there would be no consciousness at all, now or at any time; for consciousness in our experience is always a perception of different kinds of motion.

It follows that there is no known consciousness apart from motion and perception of motion; nor is there (so far as we know at present) any pure consciousness—that is to say, a consciousness entirely separate and isolated from everything else in the universe. Yet fundamentally the business of all consciousness is not motion, but observation of motion; action is its natural and perhaps necessary consequence, but contemplation of action is its ultimate nature. It seems therefore that if there is a universal consciousness, that consciousness must be immanent in the universe; at once concerned with, yet contemplative of, and superior to this problem of motion.

25. *Relative and Absolute Motion.*—It is evident that this question of motion contains the key of the whole problem, could we but discover it.

(A) The known physical universe consists of a series of variable motions, of which we interpret the slower in terms of space and the faster in terms of time.

Now the slower the motion, the longer it takes to move from place to place.

Let A be a point on one side of an island, and B a point on the other. A man, being a slow-moving organism, takes a day to walk from A to B. An aeroplane, being a fast-moving organism, takes an hour. But an inorganic stimulus, like sound, travels the distance in a few minutes. And a more rapid stimulus, like light, takes the mere fraction of a second.

But now let A be a star on one side of the universe, and B a planet on the other. The man the aeroplane, and the sound will fail to traverse the distance. It will take even light thousands of years to travel from A to B, but in the end light will traverse the distance.

Light, with its corollary time, is the fastest known motion. It is therefore our standard of reference. But light and time are still measurable, and therefore relative to space. What, then, is the ultimate standard of reference?

Apparently some quality in space; but obviously not the ponderable matter we perceive in space, which moves more slowly than light. Consideration of this point will, however, assist the argument.

(B) The slower the motion, the greater the inertia, and the more material the substance; mass and matter are not so much power as the immobilisation of power.

Similarly, the quicker the motion, as in an inorganic stimulus like sound and light, the less the inertia. By a logical extension of reasoning, it is clear that if there were such a thing as absolute motion, there would be no inertia whatever.¹

¹ It is significant that speed in human life also implies a higher energy content, and generally connotes greater intelligence. Chapter 2, section 1.

Now let A again be a star on one side of the universe, and B again be a planet on the other. The relative motion of light takes thousands of years to travel from A to B. But an absolute motion, such as we have supposed, would travel from A to B without loss of time ; its passage through the universe would be instantaneous.

Sound is audible, and its vibrations can be felt ; light is visible, and its presence and interruption can also be felt. But this absolute motion of our hypothesis, superior to all known motion, would be inaudible and invisible. It would have lost the inertia and weight characteristic even of light. It would possess no physical or material characteristics susceptible of calculation, measurement, or perhaps even definition—since definition in itself implies a limitation of quality.

Absolute motion, in short, would be superior to all known motion ; for in fact it would move so fast that it would no longer move at all. Its beginning would be its end, and its end its beginning. And it is clear that this must be the character of any absolute motion.

But at this conclusion we shall naturally hesitate, in the fear that this is a mere paradox of the mind, a philosophic plaything similar to that which declares Being and Not-Being to be identical. Yet surely it is not so.

A hypothesis of this kind can admittedly only be stated, not definitely proved. But if too remote from reality it could presumably be disproved. And its general relation to probability may at least be tested by its relation to known fact, and deductions from known fact.

(C) We know that our phenomenal universe of Space and Time is part of the real universe ; a series of local and material peculiarities that we perceive, which form part of a greater unit that as a whole we do not perceive.

Let us regard these material phenomena hypothetically as a local slowing-down of the absolute motion of the universe. In that event the formation of matter or substance may be no more than the emergence of a local peculiarity, a clotting or coagulation of absolute motion or energy which

manifests itself as a finite and temporal tendency to organisation and individuality in the universe.

Matter and substance are familiar enough to us, but their evolution is obviously local and even exceptional. There is enormously more space than substance in the universe—a fact that we must always bear in mind in our scheme of thought. These finite and material worlds that we perceive are the rare exception, not the general rule.

The creation of the world by God—either out of nothing or an external chaos—is, of course, a poetic fiction. Yet these material worlds that we perceive as finite things of space must have had a beginning in time ; and we may at least attempt to conceive something of the process.

We must postulate, then, an evolution of finite matter and substance out of an absolute medium or infinite, the development in time of something perceived out of something unperceived that is eternal.

Now the development of matter and substance can in theory be accounted for—and here we have nothing but theory to go upon—on the line suggested above as a local slowing-down and an emergence of relative and partial motion in a universe of absolute motion.¹

(D) This conjectural slowing of our hypothetical absolute motion appears in fact to take two apparently opposite but ultimately successive and complementary forms—the formation of inorganic stimulus with a tendency to scatter and spread, or broadcast itself ; and the formation of substance with a tendency to coagulate and concentrate into an organism. Inorganic stimulus is centrifugal and active, whereas organic substance is centripetal and inert.

If we consider our hypothetical absolute motion as the true norm of the universe, then this fast-moving inorganic

¹Cf. the Chinese mystic-philosopher Lieh-Tzu : “ That which has substance is engendered from that which is devoid of substance. When there is conglomeration, substance begins ; when dispersion, it comes to an end. The underlying truth is that there is neither beginning nor end. There is a creative principle itself uncreated, a principle of change itself unchanging.”

In that event, finite consciousness could be conceived as a stirring of the spirit which exists latent in matter as it turned again home.

stimulus will be a declension from that norm, and slow-moving substance a still further and presumably later declension.

It may puzzle us that the combination of these two minor forms of motion should make consciousness in the living organism, yet undoubtedly it is so ; that is the level of life and consciousness as we know it. Without stimulus the organism can possess neither life nor consciousness, and the failure to absorb stimulus means death.

But the accumulation of stimulus within the organism furnishes an excess of energy, of which it must rid itself. Action is the consequence of this excess ; all action springs from a superfluity of energy within the organism, and action in itself is nothing but an expulsion or expression of stimulus.

Contemplation, on the contrary, is not an expulsion but a containing of energy. Action from its nature always implies something of discontent and disequilibrium in the organism that acts. Contemplation is not, and cannot be other than a containing, a content, and therefore an equilibrium of the unit.

If that is so, it would appear that the universe in its complete and absolute aspect must be contemplative, since it conserves and contains its energy. Only from its relative and lesser angle can it be action ; for action is always finite, local, and partial—a slowing down and degradation of our hypothetic absolute motion. Action is itself a proof of limitation, for it is always an expression and emission of superfluous energy ; and in the nature of things action must therefore be local and not universal, and all action must derive from, and ultimately depend on, contemplation.

It is possible indeed that there is no such absolute motion, superior to all action. In that case we have deceived ourselves ; and this is no new thing. But if it exists, it must be conscious and contemplative ; since only absolute motion can be universally present, only consciousness can fulfil that condition, and only that which is above all action can be contemplative of all action.

26. There is, however, a difficulty here. Let us admit that all action is motion, and that all action falls short of absolute motion. Let us admit, too, that in the last analysis the universe is contemplative, not active—the general reservoir of energy, the destiny and therefore the source of all energy.

But this consideration seems to suggest that the mean level of local or individual action is higher than the mean level of universal contemplation; in the same way that a mountain is higher than sea-level. For if the mean energy-level of the world be a , then the local level of individual energy will apparently be $a + b$, b being the excess of energy contained in individual action. And since this excess of individual energy can only be derived, and is therefore subtracted from the total energy of the universe, then the actual level of the universe will be $a - b$, which is demonstrably less than $a + b$.

But in that event the local level of man will be higher than the actual level of the universe; which is not a proposition that carries conviction. Let us see therefore if there is not some flaw in this statement.

Admittedly life is on a higher level of energy than inert territorial matter; but it springs from inert territorial matter, and is vivified by the extra-territorial stimulus of light. Let y be light, and z the zero of inert matter; then life is $y + z$, which is a higher level than z .

But z is not the mean level of the universe, but its zero—a mere local singularity, the slow motion that we call matter. And it does not follow that the normal energy-level of the universe is either y or z , or any combination of y or z .

Since light is a more rapid motion than matter, y must be considered a higher form of energy than z . But it is still a relative form of motion; now therefore let x be the absolute motion of our hypothesis, and we shall have a series of successively descending values.

x = absolute motion.

y = light

z = material substance.

Now it is evident that in that case the average energy-level of the universe will be neither x nor y nor z , but $x - yz$. And while life and action, as yz , will be higher than z , it will be lower than $x - yz$, and still lower than the summit x .

And this statement seems more consonant with probability than its predecessor.

27. *Local or General Consciousness?*—But we may still remain doubtful whether consciousness is a mere consequence of action. If so, it can hardly be more than a local, partial, and relative phenomenon, a mere temporal intrusion into an eternally unconscious universe.

At first sight it would seem to be so; for consciousness as we know it, an internal awareness of an external world, is only derived from the impact and action of stimulus on substance—in other words, it is a local perception and absorption of finite action and relative motion by the sentient organism, which expresses itself normally in further action. The typical consciousness of our experience begins, continues, and ends in action and the absorption of action.

We shall, however, find a serious difficulty in assuming that the total extent of consciousness is confined to this personal and partial level.

For it is evident that if the universe is ultimately contemplative and therefore continent, it must contain (in the sense that it necessarily includes) all the local and transitory forms of consciousness that exist, or have ever existed; and we should consequently find ourselves discussing the paradox whether the conscious part was not in some sense greater than the unconscious whole.

And if, moreover, we were thereby led to conclude that we were ourselves the spiritual climax of all things, we should have to confess that this was a most insecure summit from which to judge so tremendous a base; and perhaps finally to admit that fate had placed us in a wholly incomprehensible world, and even in an utterly irrational universe.

It may, of course, be so. But for the time being it seems worth while to explore the alternative.

If, on the other hand, we are to regard individual con-

consciousness as a partial manifestation in time of an eternal consciousness, and thus as a local declension from the summit of ultimate reality, then the part is no longer greater than the whole, and at least this logical difficulty does not arise.

Either, then, the universe is unconscious as a whole, with here and there a local and transitory outcrop of consciousness derived from action ; or it is conscious as a whole, with here and there, in its more material and inert manifestations, a local and transitory declension from consciousness.

28. *Parallel between Physical and Spiritual Conceptions of the Universe.*—On the threshold of this fundamental problem we may recall that men have often debated the existence of an eternal world of the spirit, superior to this current bondage of space and time, and therefore prior to cause and effect ; conscious with a consciousness not bound by our petty dimensions ; the universal One which includes the Many, the central point which embraces the whole circumference of things visible and invisible.¹ If any such there be, it is this, and not the world we know, that must be the ultimate reality.

We have yet to test this magnificent conception. But it must be at once admitted that the obvious variety and diversity of the universe conceals a real unity ; there is a real One behind the phenomenal Many. Whether conscious or unconscious as a whole, the universe is a unit.

But when we enquire into the possibility of an eternal spiritual reality superior to space and time, it at once becomes evident that the conception runs parallel to our own hypothesis. For the condition of absolute motion that we have postulated would also be superior to space and time ; since those dimensions in themselves imply a declension, a limitation, and a slowing-down of absolute motion. Absolute motion must be the sum of all other motions fast and slow ; the simultaneity of absolute motion is the central

¹ Cf. the Unishad :

“ There is only one Being who exists
Unmoved, yet moving swifter than the wind.
He moves, yet moves not ; himself at rest
Transcends the fleetest flight of other beings.”

And see Chapter 6, section 4, for mystical experience of Unity.

point that includes the whole circumference of all things visible and invisible.

And we shall in the end be driven, I think, to concede that absolute motion must be conscious : since all known response and all known consciousness derive from motion and the perception of motion ; and absolute motion cannot be less, but must be more, responsive and conscious than relative motion. Only a world entirely without movement could be wholly without response and, therefore, wholly unconscious ; and there is no such world.

In that case all relative motion must derive from, and depend on, absolute motion ; and all relative consciousness must derive from, and depend on, absolute consciousness.

29. *Character of Absolute Consciousness.*—But it is obvious that this absolute consciousness must be very different from our own, since it is inclusive, not selective ; contemplative, not active. Relative consciousness is always derivative and secondary, a thing dependent on its perceptions of external motion—a consequence of the interaction of stimulus and substance, of circumstance and time. It exists, therefore, on a lower plane than absolute consciousness, which must be direct and primary, an inherent property of absolute motion, and the very origin and foundation of the universe we know.

It is clear, of course, that a consciousness such as our own, which is based on relative motion, or a combination of relative motions, and is therefore local and temporal, could not attain the supreme height of absolute motion, which is infinite and eternal.

The difference between finite and infinite consciousness is manifestly both quantitative and qualitative ; presumably not essentially different in kind, but so vastly different in degree as to amount almost to a difference in kind ; for the relation of the finite to the infinite in terms of consciousness must be roughly the relation of individual man to the knowable universe in terms of speed.¹ It may be less, but it cannot be more.

¹ Chapter 2, section 1.

We are conditioned always by the physical and chemical limitations of the living organism, and our consciousness is therefore physical and chemical rather than spiritual; the mechanism of our lives works to a clock set by time on the mantelpiece of space, which falls always short of absolute motion.

Our senses perceive the material or slower-moving elements, and they do not deceive us; for the material in fact exists. But the material, as we saw above, is the exception rather than the norm of the universe; and we thus perceive its smaller and less significant section, while its major element, which is absolute motion or spiritual reality, commonly escapes us. For the universe is not a material unit with a spiritual fragment, but a spiritual unit with a material fragment.

How far we can become aware of this absolute spiritual reality of our hypothesis, or whether we can in fact become aware of it at all, remains a problem for consideration. And while it is clear that we cannot live on these sublime heights, it is less certain that we cannot momentarily attain conscious contact with them from below; for the part, after all, is part of the whole, the lesser may have relations with the greater, and may become conscious of those relations.

Let us regard absolute motion, this summation of all movement to the supreme point at which it never moves, as God—for, indeed, it can be nothing else—and we shall recognise that the experience of man has itself assured him of the existence of this eternal consciousness that is aware of everything in space and time that moves more slowly than itself.

It lies for ever above man, but it is also for ever around him, the true norm of the universe of which he perceives at most a petty and material fragment. He strives for ever below it, but there are moments when his consciousness takes on a wider range; at such times he seems no longer to touch merely the visible skirt of the garment of God, but to attain a realisation of the essential spirit of the universe itself.

CHAPTER VI

THE PERCEPTION OF GOD

SECTION I.—APPARITIONS AND THE IDEA OF IMMORTALITY

THE unique fact which distinguishes man from his fellow animals is the discovery of God.

Every upward step in life is an extension or enlargement of the faculties of more limited predecessors. The animal which develops the sense of sight perceives more of the world than others which depend on the three earlier senses of touch, taste and smell ; the animal which develops hearing perceives still more than those which depend on the four primary senses. Man alone has developed, or rather is in process of developing, a kind of sixth sense, through which he perceives the existence of an unseen world. But when he attained that greater height, from which he first realised something of the mystery of God, human consciousness itself assumed a new quality, and began to enter another and larger dimension.

It seems at first sight that this magnificent extension of the horizon of perception should have been of inestimable advantage to its discoverers, and that so profound an increase of the recognised meaning of things must have added enormously to the happiness and wisdom of mankind. But we find that in fact its consequences have been far more dubious and complex.

Religion has indeed been a mighty, and it remains a permanent and, perhaps, increasing element in human life. Its influence is stamped deep on history ; but there has always been, and probably must always be, something enigmatic and paradoxical in its character and effect.

The essential thing about religion is that it is an exploration of the unseen world, the search for an invisible reality ; the quest by the finite of the infinite, the pursuit by the temporal of the eternal. To that quest there can in the nature of things be no definite conclusion, and consequently no ultimate certainty.

But all experience teaches man that suspension of judgment may be dangerous and even disastrous, and makes him demand precision and certainty.¹ And, therefore, he instinctively requires certainty in religion ; the greater the uncertainty of his position, the more insistently he demands assurance and authority.

This is a sound and healthy instinct of the will which makes for safety in all ordinary circumstances ; we all want certainty as we want life. But it follows that religion is most authoritative in precisely those matters on which we are least certain. Its most assured conclusions are concerned with questions on which we have no assurance of any conclusion. When men disagree it is a sure sign they are uncertain, and on no subject have they disagreed more violently than religion. Many men have died for a creed whose every sentence was disputed. But no man ever died for the multiplication table, because no man ever disputed it.

This potent influence of religion, which we can only ascribe to the increasing perception and intellection of our race, has manifestly helped to energise and vitalise mankind, and has thus led to a definite increment of personality. It has inspired the artist, the musician, and the poet ; the prophet, the priest, and the mystic have spent themselves in its service. And its insistent call beyond the world of space and time has impelled men to throw away ambition, to abandon high careers, and give up love and life itself at its command. To such men worldly desire is a bubble that bursts, but the quest of God has brought the promise of peace and understanding.

But quite evidently religion has brought evil as well as

¹ Cf. *The Evolution of Consciousness*, page 195.

good in its train. Every enlargement of perception increases the capacity for suffering and sorrow as well as joy; and like human love, which it resembles and at times transcends, religion has bred anguish and despair as well as hope and bliss.

Its very potency has made it the parent of vice as well as virtue. Few unprejudiced observers of the crimes and cruelties which secular history chronicles in the name of religion can have escaped a passing doubt whether the discovery of God has not on the whole been harmful to man; while no sincere student will emerge from the melancholy records of credulity, cant, and cunning; of dissimulation, hypocrisy, and fraud; of feud, persecution, and bloodshed, which fill the annals of the churches, without asking himself if the alleged connection of faith and morality is more than an occasional and accidental coalescence of essentially dissimilar elements.

It will be said that these things are not religion, but the counterfeit and prostitution of religion. It may be so. But at least so singular and disillusioning a paradox calls for further examination.

Religion is essentially a search for the ultimate reality, which is infinite and eternal; whereas good and evil are both temporal and local.¹ Primarily, therefore, religion derives its strength neither from man's love for good nor his lust after evil, but from his recognition of a world beyond normal perception.

¹ It is curious that the neo-Platonists, who denied the reality of evil, did not see that in doing so they were also denying the reality of good; for good and evil, like pleasure and pain in Leonardo da Vinci's parable, are two sides of the same face. Both are real to us, in the position in which we stand, but not the ultimate reality. The philosophers of religion have generally ignored the profound saying of Heraclitus: "Men hold some things wrong and some right; God holds all things fair."

But the doctrine of the essential goodness of God, common to both Greek and Hebrew thought, has involved endless and wholly unprofitable controversies over the origin, nature and purpose of evil. Once the substantive doctrine is abandoned, and it is recognised that God is above good and evil, the difficulty which has scandalised theologians vanishes.

It may seem strange that the doctrine should have survived plague, pestilence, and famine. Perhaps the survivors thought their own survival sufficient proof of the goodness of God.

The very existence of this new perception, this quest of the unseen, is consequently a proof of man's advance ; and all attempts to return to the purely material and phenomenal attitude towards life and the universe are therefore retrograde. But an advance may be immediately dangerous as well as finally profitable. The pioneer may stumble and perish, but the colonist survives and settles in the land of promise.

The Hope of Immortality.—The unspoken thought behind all religion—the toy of every poet, the text of every prophet, the torment of every philosopher—is the fact that life passes like a shadow and is gone. The figures on the screen flit and vanish, and others take their place and vanish in their turn ; the interminable show proceeds.

The interest of religion is still in this tremendous problem of continuity, but it is the continuity no longer of the body but the soul. Many different sources have contributed to form religious belief ; politics, society, and the conundrum of the natural world have all played their part. But there can be little doubt that the earliest religious experience was the perception of apparitions and ghosts. Perception of fact always precedes conception of idea, and man perceived that an invisible world existed long before he attained any knowledge of its character.

All history shows that man discovers first, and generalises afterwards ; it is, therefore, highly improbable that he believed in immortality first and saw ghosts afterwards. Almost certainly he saw ghosts first and thence deduced the survival of the soul.¹

¹ It is, of course, impossible to prove this. But we are always more interested in persons than principles, and popular religion is always more concerned with ghosts than with God. This is true even of the sublime creation of Dante.

For long I thought that man saw his first ghost in a dream, and that the phantoms of his waking hours were a later (and therefore imaginary) development. But further study of psychic evidence showed this to be improbable ; although dreams have in fact strengthened the belief in ghosts and immortality very considerably—partly because dreams are many and visions few.

Man is not on the whole an imaginative being, and even his wildest dreams reflect while they distort some real experience. Our primitive

On the whole, however, he did not pursue this matter very far; perhaps it was too remote from immediate daily interests—for life, after all, is a continuous problem, and death only an occasional visitor. Practically every tribe has its legends of ghosts, but few have developed these traditions into a consistent philosophy of human immortality. In this, as in other matters, perception or belief is common, constructive thought rare.

Unfortunately there are no records whatever of these primitive religious experiences. There is merely the common tradition which has survived every age and—in spite of rationalist criticism and incredulity from the impercipient majority—is not less strong all the world over to-day. The earliest chapters of religious history are therefore for ever missing; it is impossible to analyse lost records. But the ghosts of old tradition and the accounts of contemporary apparitions are substantially similar, and it therefore occurred to me that it might be practicable to investigate the basis and perhaps the character of primitive belief from its modern descendants.

It is, of course, impossible for any candid observer to deny the existence of super-normal or occult psychic phenomenon; these things may be hallucination, but even subjective hallucination has always some basis of objective experience, which it misunderstands or misinterprets. Nor is the alternative assumption tenable that these things are confined entirely to the ancient and ignorant. Experiences of this kind have occurred to men like Scott, Goethe, Browning, Brougham, de Musset, Dufferin, and Beresford; and it is difficult to dismiss men of this calibre as dishonest or idiotic.

But the scientific interpretation of these matters is a very complex problem. We cannot dismiss them with the convinced materialist, as mere creatures of the imagination; the coincidences are altogether too startling, and it is sheer folly to exclude evidence because it conflicts with

tendency is always to believe what we see; only later does the critical faculty awake, to examine and doubt experience.

theory or prejudice. We cannot, on the other hand, accept them without further question, like the convinced spiritualist, as sufficient and self-evident proof of the immortality of the soul. They are far too fragile a foundation for so stupendous an assumption; and spiritualists themselves are in fact divided on the subject—one section believing in individual survival for ever in time, another inclining to the rival (and logically contradictory) assumption of reincarnation. It is obvious that both these doctrines cannot be true.

Manifestly there was a case here for investigation, but the real difficulty, it seemed to me at first, was not so much the lack of evidence as the fact that there was no acceptable canon of evidence in spiritualist literature. Side by side with some extraordinary phenomenon that nearly brings conviction one finds a silly story that would almost make a cat laugh—Robert Owen, for instance, gravely records the presence of Job, Enoch, and Noah, at a seance; and hard upon the revelations of a famous medium comes the exposure of a fraud. In these circumstances, it is not very surprising that the ordinary man abandons the subject to the credulous and the sensation-monger. Life is short, and if there is any truth in these things, we shall find out for ourselves when death shuts the little ledger of our lives; after all, most people have a reasonable objection to wasting their time.

But the attitude of indifferent detachment can no longer be logically maintained. The late Camille Flammarion, by no means a credulous person, collected during many years from all parts of the world a large body of psychic evidence. These he examined and sifted, with the care of an expert scientific intelligence, before publishing; and a preliminary reading of the documents he cited showed me that here at last was the material for an investigation of the kind I had in view. It is true that there was not enough of it, but there seemed sufficient for a detailed study to yield definite results.

The statistical method, which I used as an instrument

of research, hardly needs defence. It cannot admittedly provide any direct assurance of the truth of the observations and experiments submitted to it. But when competently employed it can never be ignored as an indirect test, and its conclusions increase in weight and probability with every additional case.

In the following enquiry, working on the lines of the well-known *as if* method, I accepted the statements of M. Flammarion's correspondents *as if* they were true, and proceeded to analyse them in a succession of tabular columns.

It should be said that a few of his documents were excluded because, although interesting and possibly important, they omitted, or gave only vaguely, the very details of which I required precise information. A few more were excluded because the statements came from professed psychics, and for obvious reasons I wanted a number of separate cases, not a series of instances from a few individuals. I likewise omitted records obtained by automatic writing, mediums, and other artificial aids to super-normal information; automatic script being rejected because of the possibility of unconscious memory and thought-transmission, mediums because of the possibility of fraud, and both because neither of these methods was available to primitive man—whose belief in an unseen world, so far as possible, I wished to test by this enquiry.

With one exception, therefore, the cases tabulated were of direct perception. (The exception is that of a spirit who reported to a seance that he had been dead 200 years. It was included by oversight, and only discovered when I checked the lists. I retained it to illustrate another side of the problem, since one case can make no appreciable difference to the statistical results).

Most of the percipients had only one abnormal experience in their lives—I purposely omitted any who had, or at least admitted, more than two; and in most of the cases in my lists the percipients were not expecting any such manifestation. We are therefore rid, and well rid, of that bugbear of psychology, the visionary who sees what he

wishes to see, the individual whose desire fulfils itself. In a considerable proportion of these cases, indeed, the percipients saw what they did not wish to see.

Apart from this I exercised no discrimination, and tabulated Flammarion's documents without the least idea of the results they would yield—and indeed with the uncomfortable feeling at the back of my mind that they might conceivably yield no intelligible result whatever, and that the whole investigation might prove waste labour.

The results follow.

Analysis of Apparitions.—There were altogether 275 cases of super-normal or psychic perception—a sufficient number for my purpose. The percipients were of all classes from prince to peasant, and all ages from two to eighty. Unfortunately the exact age of the percipient was often omitted from the document—a most regrettable loss, which prevented me from ascertaining whether there was any general correlation between age and psychic perception. So far as I could ascertain, there was no marked distinction between youth, maturity, and old age in this matter, but this was a casual impression that might be modified by more complete material.

So far as could be discovered the cases were evenly distributed between town and country, thus belying the idea that the townsman is more enlightened or more materialistic; and I did not notice that an undue proportion were Roman Catholics—who are, I suppose, rather more inclined to believe in the supernatural than Protestants. A number of cases were reported by men of no particular religious faith, a few by professed sceptics. These last presented no noticeable difference of content from those of religious men—a point of some significance.

Even Distribution of Psychic Experience.—In view of the widespread belief that super-normal experiences occur mostly at night and more especially in dreams, I first analysed the time-ratio of Flammarion's records. In a great number the exact time of the occurrence was either not noted or was omitted in the document, but 113 cases

remained in which the time was mentioned with sufficient precision.

The day was divided for this purpose into two periods, one of 16 waking hours from 8 a.m. to midnight, the other of 8 hours from midnight to 8 a.m. Of the 113 cases, 35 took place at night, and 78 by day. This indicates that psychic experience is quite evenly distributed over the twenty-four hours; a rather surprising result which, however, seems more in accord with probability than popular theory.

It may be added that of the 35 apparitions at night, 6 occurred definitely in dreams; 12 either at the moment of waking, or after waking. In the remainder it was not clearly stated whether the percipient was asleep or awake at the moment of vision. In most cases, however, the psychic dream (like any other vivid dream) seems to wake the dreamer; which tells in favour of its objective origin, and against the Freudian theory of the dream as the guardian of sleep.

Compacts, Wishes, Rewards.—Turning now to another table, 19 of these apparitions followed compacts between friends to appear to the other at death; 14 expressed definite wishes, either for prayers or for debts to be paid; 6 were for the purpose of giving warning of impending danger or approaching death—the guardian angel of popular belief. One gave information in regard to property, one conveyed thanks, one uttered a reproach, and one expressed remorse.

None showed disappointment or elation at the new state; nor expressed either desire for revenge or wish to return. I could find no suggestion whatever in these records of punishment, purification, or reward—this last a very significant omission.

In this respect it will be observed that Flammarion's apparitions tally closely with the most primitive beliefs of man. There is little if any ethical content in heathen doctrines of survival; nor are hell, purgatory, or paradise known to Homer. These ideas came over from Egypt, are hinted at in the lovely sixth *Aeneid*, and were developed

by Islam and Christianity into the perfect flower of the *Divine Comedy*.¹ To that extent, then, modern psychic experience supports early tradition rather than orthodox religion.

Possibly these figures have further significance. "I have careful records," says Sir William Osler, the famous physician, "of about 500 deathbeds, studied particularly with reference to the modes of death and the sensations of the dying. The latter alone concern us here. Ninety suffered bodily pain or distress of one sort or another. Eleven showed mental apprehension. Two positive terror. One expressed spiritual exaltation, one bitter remorse. The great majority gave no sign one way or another; like their birth, their death was a sleep and a forgetting. The Preacher was right, in this matter man hath no pre-eminence over the beast—'as the one dieth, so dieth the other.'" The exhausted mechanism knows neither fear nor hope. The will, so strong in life that some have considered it unbreakable, declines with the approach of death; and when life ceases it is extinct, or nearly extinct.

These cases do not disagree with Flammarion's records. Of Osler's 500 cases, 395 (or 79 per cent.) expressed no particular desire at death. Of Flammarion's 275 cases, 232 (or 84.4 per cent.) expressed no particular desire at or after death. The coincidence is suggestive, and significant.

Comparison of Male and Female Percipients.—I now analysed these 275 cases on other lines, and a division in terms of sex follows naturally on the preceding tables.

¹ Of the percipients 122 were males and 153 females—a ratio of 44 per cent. males to 55 females. This at first suggests that the female excels the male by some 11 per cent. in psychic sensitiveness or receptivity (or, as some may put it, in liability to hallucination).

But I discovered that the figures in detail did not confirm this supposition. For the fact is that if the percipients

¹ Asin (*Islam and the Divine Comedy*) shows that most of the spiritual geography of Dante was derived from Islamic sources.

are again divided into two chronological series, a very remarkable divergence shows itself.

If we take, as Class A, recorded perceptions of apparitions before, at, or immediately after a death, the male percipients are 95 to the female 101—a difference so small in a series of nearly 200 cases as to be practically negligible.

If, on the other hand, we take Class B, the less frequent cases of perceptions weeks, months, or even years after a death, we find the male percipients are 27 to female 52—a ratio of 34 to 65 per cent.

This is assuredly an interesting and—if the investigation has any meaning at all—important result. The two sexes are equally sensitive to contemporary phenomena ; but the female is twice as sensitive (or subject to hallucination) as the male when the origin of the phenomena are far removed in time.

Comparison of Manifestants.—But when, on the other hand, we turn from the sex of the percipients to that of the apparitions, the position is reversed. Of 256 recorded apparitions, 158 were males and 98 females—61.7 and 38.3 per cent. respectively. So considerable a disproportion can hardly be accidental.

Here, however, no such distinction exists as among the percipients on the score of time. I divided these lists into four chronological periods : two of apparitions before or at death, one of apparitions immediately after death, and one of apparitions some considerable time after death. Male apparitions are in excess of female in every list, and in very similar proportions.

It will be at once objected, of course, that female percipients are more likely to perceive male manifestants ; and that an excess of female percipients (or hallucinants) on one side will therefore naturally produce an excess of male apparitions on the other. But further examination of the figures shows that the sex-attraction theory is a complete fallacy.

There are four possible relationships here ; a dead male to a living female, a dead female to a living male, a dead

male to a living male, and a dead female to a living female. Now the most numerous apparitions recorded were those of dead males to living females—80. But these were very closely followed by apparitions of dead males to living males—78; a difference so slight as to be obviously negligible. (A very large proportion of these latter cases were of dead fathers to living sons; which suggests that the tie between father and son may be much closer than is often supposed).

On the other hand, there were 55 apparitions of females to females, and only 43 of females to males, this last being the lowest of the four classes. The appearances of dead wives to living husbands were singularly few; I record the fact, I do not attempt to explain it.

If these curious figures have any meaning—and I am assuming throughout that they have—they suggest two definite points.

Firstly, the female is, on the whole, slightly more susceptible to super-normal phenomena than the male. But her superiority only becomes pronounced in the case of apparitions some considerable time after death. This may be interpreted as meaning either (a) that the female is more faithful to past memories than the male, or (b) that she retains super-normal susceptibilities to a later age than the male.

The evidence at my disposal was insufficient to decide between these alternatives; possibly both play some part. I seemed, indeed, to discover indications that a greater proportion of male than female percipients were of adolescent or early adult years. But it is difficult to speak with precision on this point, as the exact age of the percipient was not often given.

Secondly, there is a greater excess of male over female apparitions than of female over male percipients. This does not, I suppose, indicate that more males than females survive death—I am, of course, taking the hypothesis of survival *as if* it were true—but it does suggest that the male finds it less difficult to manifest than the female.

That is not surprising. If anything survives at all—soul,

will, physical or psychic personality, or whatever it may be—it must survive as a form of finite energy ; and in the case of an objective apparition, if such a thing there be, an active stimulus rather than latent energy. Now all physiology indicates that the male is more active and has a greater energy-content than the female ; probably in the proportions normally of about 53 to 47 per cent. To that extent the figures of male and female apparitions—61 to 39 per cent.—are consonant with antecedent probability.¹

Visual, Auditory, or Olfactory Manifestations.—To form another estimate of the character of these visitations, I now tabulated a different set of figures ; which showed that 142 were purely visual, 21 purely auditory, and 61 both visual and auditory. The total of visual manifestations was therefore 203 ; of auditory manifestations 82. (The discrepancy between the total of 275 cases and 285 manifestations may puzzle some readers. But several of these apparitions appeared to more than one person.)

In these cases the image or the voice was sharply defined and clearly recognised ; but in actual fact the disproportion of visual and auditory manifestations is probably not so great as the figures suggest. There were several cases of mere noises attributed, with greater or less probability, to the dead—nearly all during the period immediately following death—and of these I purposely took no account in the above calculation, on the ground that some at least may have been coincidence.

There were in addition a few cases of “ icy hands,” “ cold winds,” embraces, and other apparently tactile manifestations ; these were occasionally associated with visual or auditory phenomena—in which case they were more likely to have been imaginary—and in other instances isolated. Touch, however, the common parent of all the senses, appears to play only a small part in the occult world ; but it is more frequent than recognition by smell, of which

¹ It is a relevant fact in this connection that, although women are traditionally more religious in the receptive and contemplative sense than men, they are seldom active religious leaders, and few miracles are attributed to women.

no more than one definite case was recorded. Odour is too physical to be regarded as occult.

Now it is common knowledge that with most mammals the sense of smell is stronger than sight ; unlike birds, among whom sight has conquered its elder and more earthen rival. But in this, as in many other matters, man is an exception to other earth-bound animals, and in him sight has become the dominant sense, with hearing the next most potent instrument, and smell far in the rear—indeed, the sense of touch is generally stronger in human beings than that of smell.

Physiology, then, is again in accord with these manifestations, and analysis shows that our perceptions of an unknown world follow generally along the line of perception of the known. This does not, of course, prove the truth of these reports. But it goes some way to establish the honesty of the reporters.

So much, I think, is clear. But certain other deductions seem permissible from this analysis.

The facts recorded appear to indicate that we see an apparition with our ordinary physical eyes, and hear an audition with physical ears, and not with some suppositious spiritual organ of perception unknown to physiology. Moreover the occasional instances recorded of an apparition having been seen or heard by a cat or a dog in the room at the same time as the human percipient helps to substantiate this belief ; for it is not, I imagine, an article of occult faith that domestic quadrupeds are endowed with spiritual organs. But if apparitions and auditions are perceived by the physical senses, they must themselves be physical, and consist of physical stimulus.

These tentative deductions seem, however, to add considerably to the probability of these phenomena, because they are more consistent with a scientific interpretation of the universe. Most spiritualists adopt (probably without thinking) the old dualist philosophy, or at least phraseology of matter and spirit ; and this leads them also to speak of spiritual eyes and ears, spiritual essences, emanations, and

radiations, and other unconvincing expressions. But the universe is a monism, not a dualism; and a ghost is not less a ghost because it is seen with physical eyes or ears, possibly in some temporary and transitory extension or enlargement of our normal and very limited range of sense-perception. Nor is the other world less another world to us because it is an extension of this world that is beyond the normal limits of our senses.¹

From this point the records become less full and the track more uncertain; and I found myself dealing with isolated cases that might or might not be significant, rather than similar phenomena that could be classified and compared. It is necessary to cite a few of these cases.

In one curious instance what seemed a glow or a light to one person sounded like a knock to another—that is to say, A's apparition became B's audition. In a second, where a blind man heard knocks, the question arises whether the blind can have visions, or the deaf hear voices? At least there are none such in my records—which is at least negative evidence in favour of the physiological character of these manifestations.

A third, and particularly instructive case, was the phantom of a living person. To the percipient it was an auditive phenomenon, but the person whose voice was heard at a distance was not aware of having spoken. The audition may, of course, have been hallucination—everyone has heard imaginary voices—but this case may also fall into a small but definite class in my collection which suggests that the sense which receives an occult impression may refer the interpretation to another sense; a psychological point of some importance to which I shall return later.

A fourth, and roughly parallel case, was of a dying child who kissed its parent's photograph. The apparition became visible to the father hundreds of miles away, who had the sensation of being physically embraced. This suggests

¹ It may, of course, be a misdescription to speak of a ghost appearing and disappearing. What appears and disappears may be our perception of it—as with the spokes of a wheel rotating above or below a certain speed.

the conveyance of an unspoken message, and its free but substantially accurate translation from one language to another.

In the fifth case, a thought uttered aloud in words became a physical apparition to the percipient; and there was another small class which was neither visual nor auditory. One was merely "a general impression"; three were described as feelings of relief, well-being, or happiness by the percipients; four were a definite thought (of the deceased person at the exact moment of death).

There were thus eight more or less definite cases of real or apparent thought-transference—that is to say, eight persons out of a total of nearly three hundred percipients were not conscious of any physical perception, but were clearly conscious of a mental impression.

And in this connection the following may be cited. (It is not in *Flammarton*; it was told me by a medical man not in any sense a spiritualist). An elderly doctor lay dangerously ill, and his son, also a doctor, was doubtful of his recovery. While the illness was still critical, he was sent for by an old patient of his father's, who said to him, "Your father is very ill, but don't worry—he will recover." (He did).

A chance prediction? Possibly; if there were no more to the story it would not be worth repeating. But this old patient was blind and deaf, and therefore cut off from ordinary channels of information. The difficulty here is not the prophecy, but the fact that the old man was aware of his doctor's illness.

The classic maxim declares that there is nothing in the intellect which is not first perceived by the senses. The experiences recorded in the preceding paragraphs seem flatly to contradict that definition. Are we then to abandon the maxim, as the spiritualist would advise, or reject the experiences, as the materialist would advocate?

I think we need do neither. We have already found reason to believe that the bulk of occult experience is perceived through the ordinary senses. We are therefore

only concerned with a minority of cases, in which A's apparition becomes B's audition, or *vice versa*, and cases of thought-transference—a small but important class.

Now the fact that most occult experience derives through the ordinary senses at once suggests that even these apparent exceptions may be found in the end to come through these same physical channels, and not through some unknown organ of physiology or psychology. There are innumerable cases in normal experience in which the physical stimulus to the senses is so slight that it produces no definite mental image, but merely a vague impression, like a passing shadow, on the surface of the mind. And there are innumerable other cases, again in normal experience, in which a definite mental image or condition is produced, but we are not aware of any prior physical stimulus. Yet nobody doubts that a prior physical stimulus has in fact produced this vague impression or this definite mental image or condition.

It is therefore reasonable to assume, until the contrary is proved, that what is true of normal experience is equally true of occult experience ; and that a physical sensation of which the subject is unaware precedes a mental condition of which the subject becomes aware. Proceeding on this tentative assumption I find that in 13 cases out of nearly 300 either (*a*) there was no recollection of a physical sensation but a mental impression more or less clear ; or (*b*) what was to one person an apparition became to another an audition.

The former category (*a*) are obviously paralleled by ordinary physical experience, and if we are to conclude that this is true of occult experience it would explain some of the philosophic difficulties which surround this problem.

The latter category (*b*) in which an evidently identical experience is interpreted by one person as an apparition and by another as an audition, seems at first sight more difficult to understand. But it is, I think, parallel to those cases of sounds perceived as colours which have recently been subjected to detailed investigation.

So far as experience shows, it is clear that we receive

information through the senses, and interpret it to the best of our ability (but not always accurately, as mystical records attest) in the mind. But physiology and psychology alike recognise that there is an area between physical perception and mental interpretation, a mental adjunct of physical sense that is neither wholly physical nor wholly mental. Experience is often referred to this area; and a man in whom the visual sense is dominant, and the auditive defective, tends to visualise his auditive experience, and *vice versa*.¹

I suggest, therefore, that this method of referring the interpretation to the dominant sense is also at work in occult experience, and that this category (*b*) at first sight so paradoxical and contradictory, may in fact be examples of the individual differences of the percipients—in the same way that Dante, a strong visualist, relies on concrete images to convey his thought, while Milton, a strong auditive, produces vague pictures but delights in the majesty of sound and music in both verse and prose. On this assumption at least this secondary category becomes intelligible, and falls into a recognised psychological class.

Preliminary Results of Analysis.—The phenomena analysed above certainly do not show that the soul is immortal. Nor do they, unfortunately, throw any direct light on the actual psychological process of death. But unless it can be shown that deception or hallucination account for the whole of these 275 cases, their cumulative effect gives a high degree of probability to the belief in some kind of survival.

They do not, it is true, afford much definite indication as to the nature of that survival. It may be the mere shadowy existence which Homer's heroes impotently lamented—"it is better to live on earth as the poorest peasant than to rule as a prince of the dead," says the *Odyssey*.² Or it may be the more robust and progressive

¹ See chapter 1.

² Primitive tribes often regard ghosts as harmful or malignant, but seldom as powerful or intelligent. The negro, says Dennett (*Back of the Black Man's Mind*), holds that intelligence dies with man. Talbot

condition of Catholic tradition. But a few tentative indications may be noted from my analysis.

1. If these cases attest survival they gave no discoverable indication of any survival of the fittest. The apparitions, like the percipients, were of all classes and countries, and of all ages at death from two to ninety. (Unfortunately, the precise age of the apparition was not often recorded ; this information would have been very valuable.)

They were people of excellent, mediocre, and quite ordinary character, although none, I think, has really bad or criminal records. A few were suicides ; and since the suicide definitely desires not to live, it may be held that this is positive evidence that survival is independent of individual will. The suicide, however, is one who dies before his time, and therefore before the energy of the organism is exhausted ; which may possibly account for the apparition.¹

2. The apparition or phantom occasionally (but not in a majority of cases) gives information of events in its previous life. This seems to suggest that some kind of memory, and therefore some continuous consciousness essential to the persistence of individual identity, survives, or at any rate may in certain cases survive death (at least for a time). But it may merely indicate that the last stimulus which emanates from the defunct organism retains for a while some of the dominant characteristics of that organism when alive ; for even at death some little force is still left in the corpse which it must eventually give up before complete dissolution.

3. It shows a tendency to manifest, and less often to express itself. This seems to indicate that the will, or some fragment of the will, may survive in active, and not merely passive form ; or at least that it may actively so survive

(*Shadow of the Bush*), records the belief that ghosts can count as far as six, not seven ; in New Guinea and many other countries it is thought that the ghost can be deceived by blocking up the door of the house it used to use, and it can also be frightened away by shouting. Kafirs, however, (Kidd, *The Essential Kafir*), believe that epileptics are possessed by enraged ancestral spirits.

¹ In most countries it is held that persons who die violent deaths haunt the place where they meet their end.

in certain cases—for deaths are many, but apparitions few, and direct messages fewer.

This deficiency, however, may equally be interpreted as a defect in the living receiver, not in the ghostly transmitter. The spiritualist who relies on mediums naturally takes this view, and scientific knowledge of the limits of our perceptions cannot reject this assumption as in itself unreasonable; but the statistical evidence before me throws no direct light on this crucial matter.

4. The ghost requests prayers and masses—the latter being confined to Catholics; and desires payment of debts contracted in earthly life. This may suggest that the mentality and sense of ethical values is not much changed; but the fact that the prayers desired are for repose, not for growth or development in the new life, appears to tell against the assumption of indefinite survival. And this evidence could equally be interpreted as the temporary survival, not of personal individuality, but of the dominant idea of the dying individual.

Pleas for the discharge of petty debts may also be interpreted in this way; it seems as though the ghost, whatever it may be, could not rest until accounts are closed. But I should have been more happy in this last surmise had apparitions of some great scoundrels returned to express remorse. It is indeed admirable that a respectable citizen who owes somebody five shillings should request his heirs to settle the bill. But the hypocrite, the swindler, and the seducer, hold their dishonoured peace.

Perhaps the explanation lies in differences of intention. If the rogue has no idea of making amends when living no confession is received when dead. But the honest man always intends to pay his debts, although he may be unable through physical weakness to express himself on his death-bed. Here, as in the case of requests for prayers or masses, the postmortem message may be interpreted as the temporary survival, not of personal individuality, but of the dominant idea of the dying individual, which may only find effective release as the organism begins to dissolve after death.

These are deep and difficult waters. But it is proverbially the ghost of the murdered, not the murderer, that walks the earth ; the murdered man, like the suicide, dies before his time, and therefore before the energy of the organism is exhausted. These facts, then, may indicate that apparitions are the expression of the dominant idea of the individual at the moment of death ; the ghost of the murdered man still walks because his desire of revenge can never be satisfied, but the honest bourgeois rests in peace when the last halfpenny of his debts is paid.

5. The ghost finds the people it wants to find, even when they are far distant or on the other side of the earth ; there are several cases in which the ghost has immediately manifested itself to persons of whose precise location the individual was ignorant when living. This appears at first sight to indicate a sense of direction superior to that of ordinary human life (such as naturalists sometimes postulate in birds) ; but I think it more definitely suggests the possibility of an inorganic psychic stimulus being disseminated or broadcast at or soon after death, rather than the survival of an individual organism with personal attributes.

To this matter I will return later, but it must here be said that the fact that a ghost travels from China to England, or from Australia to America, in an instant of time, seems also to demonstrate that it retains at least some physical properties. A force or form of energy which thus follows the curve of the earth obviously obeys the laws of gravitation.

But, even if we accept all these records *as if* they were true, it is clear that not all visions are real and substantive in the sense of being personal. A phantom of the living is manifestly not the living man himself, but a reflection, like a mirage, at a distance ; the mere shadow of the substance, like the setting sun in a window. These things seem to be unconscious emanations of energy, a form of psychic stimulus broadcast through space at some moment of supreme individual emotion and expression.

Many apparitions of the dead seem to be the same ; this perhaps accounts for the dripping clothes seen in visions of

the drowned, and similar phenomena. (The vision of religious experience, on the other hand, comes in a different category ; it is either the reference of a super-normal perception to the dominant sense, which may misinterpret it, or the mainly subjective translation into consciousness of some objective experience.¹

6. The fact that apparitions become fewer as the period after death increases seems also to support the assumption that survival, whether individual and personal or merely of some physical or psychic stimulus emanating from the organism, is only temporary ; and to suggest that spiritual, like bodily disintegration, proceeds steadily towards complete dissolution (or sublimation) until these individual remnants are absorbed in the continent universe.

Against this, however, must be set communications purporting to be received thirty, forty, fifty years after death ; and one (unfortunately not attested) claiming to be two hundred years after death. A similar case, but well attested, is recorded in other psychic enquiries, although not included in Flammarion's list.

An Existence in other Dimensions.—All this does not amount to much ; perhaps the most definite result of our dredging is the hint that the ghost may have a real existence, but an existence in other dimensions of space and time.

A living being exists in a world of six dimensions—three of space and three of time. Of these six dimensions a man is normally conscious of four—three of space, one of time.

Now if the ghost is able to manifest itself to us, there must be a point of contact between apparition and percipient. It must therefore exist in one or more of our four dimensions ; but its remaining dimensions need not be ours. And moreover, they seem unlikely to be ours, since it is only occasionally in contact with us. Let us see if we can elucidate this puzzle.

1. It is clear that to the ghost material space has not the same properties of solidity as to us ; since it can pass

¹ Section 3.

through closed doors, shut windows, and solid walls, like wireless waves.

2. If we accept these records at their face value, it seems clear too that the ghost travels with the speed of light or time ; since a death in China is instantly reflected as an apparition in England.¹

Moreover, time is not definitely the continuous present, as with us ; since a few of these records (in which warnings of the future are mentioned) suggest that the ghost can occasionally see a little further ahead in time than we. The faculty does not indeed go very far—the more ambitious prophecies of the spirits are singularly unconvincing—but on the assumption that the records we are examining are true, the ghost seems to watch events from a rather higher angle, and therefore to command a rather more distant time-horizon.

Two therefore of the potential six dimensions drop out from the spectral world ; but with them, as with us, four potential dimensions remain. Two are spatial—length and breadth ; two are temporal—the universality and solidity of time. Of these only the two spatial dimensions are ours ; the two temporal dimensions escape us.

This would account both for the normal difficulty and the occasional possibility of perception on our side ; and for the normal difficulty and occasional possibility of manifestation on the other side.

On the other hand eternity (which must be the same thing as infinity) so far as we understand it, can have no dimensions either of space or time. The universe is eternal, and since we are part of the universe, we ourselves live in eternity ; but normally we are only conscious of time—time being not the opposite of eternity, but merely that limited section of eternity, that lower platform of reality, of which we are aware.

¹ Talbot (*Shadow of the Bush*) records that in Nigeria, when a ghost is called up by a witch, it is always in a great hurry, never stays to answer questions, and never states that it is dead.

Now the ghost is apparently not entirely existent in eternity ; at any rate, it is not entirely in eternity when we perceive it, since we only perceive spatial-temporal objects. It may, of course, be nearer to eternity than we are, but it clearly retains something of a spatial-temporal character, or it could not manifest at all. But the speed at which it travels, and the conditions in which it exists, or at least seems to exist, suggest quite definitely that it functions as an inorganic stimulus (like light), and not as an individual organism. Its survival can therefore hardly be that of a personal entity in any sense known to, or at least understood by us.

The Psychological Process of Death.—It was said above that the records here analysed gave no information as to the mysterious psychological process of death. But it is at least conceivable that this is because there is here no mystery at all, and nothing happens at death except cessation of life.

When the light of life goes out like a candle, it leaves nothing but a dead piece of wick behind ; personality, like the light of the candle, has already expressed itself. Now the expression of personality, like the light of the candle, must be from its nature an expulsion of energy which has previously been absorbed ; and the length of life, like the wick of the candle, is determined in advance.

An accident of circumstance may make it burn too quickly, or smoke, or gutter, or blow it out before its time, exactly like a candle in the wind. We can make it last a little longer by slowing down our working pace—like a fire made of damp wood, which only smoulders—but nothing can make it last longer than the capacity of the wick. There are limits to the potential absorption and therefore to the expulsion of energy, in both wick and person ; and when the process is over, the great little business of life is finished for that particular person.

The assumption then that human personality (or the essential soul of the individual) leaves the body in one decisive act at death seems untenable.¹ It would be more

¹ The fact that apparitions are most frequent at the moment of death

true to say that we are constantly absorbing energy from without, creating or rather moulding it into personality during life, and as constantly expressing it in action. An element of personality leaves the body in every action, every intake of light and air repairs the loss, and death is but the sign that the process for that particular individual is ended. All consciousness is derived from without and spent from within ; but when it ceases for the individual, it seems simply to cease for the individual, like a bank account that is exhausted.

On this view, therefore, it is not that human personality leaves the body at death, but that death occurs when the living organism no longer absorbs energy, has spent its current balance in hand, and personality is exhausted. Action, at least that particular series of individual actions, is finished ; for action, whether in animate or inanimate nature, is not and never can be anything but an expression or expulsion of superfluous energy by an organism, and when the supply is exhausted, action ceases, either for the time being or for ever. The clock of that particular machine, whether it is a cold star in the heavens or a cold corpse on earth, has run down.¹

Energy, of course, can be transformed, but not annihilated ; action can be passed on (like an electric current) appears to tell against this. " But," says Hollander, " if the last brain-waves of life be frequently intensest—convulsive in their energy, as the firefly's dying flash is its brightest—we may understand how it is that apparitions at death are far more numerous and clear than any other ghost appearances."

The dominant wish would naturally survive the longest—the ruling passion which is proverbially strong in death. But in the majority of cases, as the evidence shows, there is no longer any dominant wish.

¹ There are cases on record in which the heart has stopped beating, where life is apparently and consciousness certainly extinct, but both have been restored. These cases support the argument in the text, rather than the popular theory that the soul definitely leaves the body at death—unless we adopt the difficult position that it can be recalled from some external location to its abandoned tenement by medical aid.

Whether we believe or disbelieve the recorded miracles of raising the dead, the same problem arises in religion as in the more definitely medical cases ; cf. the raising of Lazarus and an extraordinary instance in the *Life of St. Philip Neri*.

All these cases suggest that, so far from leaving the body, the soul at death sinks or shrinks from the active and expressive to the merely latent level, like the physical mechanism which houses it.

or it may lie latent till an appropriate stimulus releases it (like heat in coal, or a letter in the post). What, then, becomes of the energy continually thus expressed through life by the human individual in action ?

Spiritualists and materialists alike are apt, I think, to under-estimate the complexity of this problem—which, indeed, ultimately involves scientific and philosophic speculations beyond present knowledge. It would require a book rather than a chapter to discuss these things, but at least it is clear that survival is not of one kind, a personal fabric all of one piece.

Some of this individual energy is manifestly passed on, like an electric current, in a new combination—the children it has begotten, as the old theologies declared that God had begotten man, in His own image. Some of it obviously remains potential and latent—the house it has built, for example. And some may remain suspended but retain its potency, like a letter in the box waiting to be read, or the idea expressed in a classic work which is lost for a thousand years and then recovered.

These and other familiar expressions of personal energy are a constant and visible part of normal experience. But they are not the whole expression of human energy, and they do not account for the occult, which is mostly invisible and abnormal. Yet the book of life must balance to the last fraction, and we must in the end give out precisely the amount of energy we take in. How, then, account for the discrepancy ?

I think the explanation must be sought along the following lines. Any conversion of energy from one form to another always involves apparent waste and loss of energy ; waste being in fact nothing more than excess of energy for one particular purpose, or, if we prefer to put it so, a lack of purpose in that particular organism. Now all biology recognises that the organism is influenced by its environment, but we do not so readily recognise the obvious corollary, that the environment is influenced by the organism.

Most of our output of energy is applied to the concrete

purpose of going on living and perpetuating the family. Some, however, is apparently wasted, in the sense that it is not applied to any definite purpose, such as the creation of children, the building of houses, or the foundation of an institution. What then happens to it?

We have already some possible indications. Psychometry suggests that the overflow of individual energy leaves an impression on material objects—such as coins or jewellery—with which it has been in contact; the effect is uncertain, and probably varies with the individual, but we cannot wholly disregard the evidence. Moreover, the accounts of poltergeist and haunted houses seem to show that this influence, although inert, latent, and cohesive, may be released and rendered active by appropriate stimulus. (Some would also add the cures wrought by relics. But these are almost certainly due to subjective faith, not objective virtue; for false relics are equally effective.)

The emissions of individual living energy must be continuous. But they may or may not find a receiver, and the receiver may or may not be conscious of them—many persons are sub-normal rather than super-normal. In any event, these emissions of living psychic energy are broadcast into space, and much of their content must therefore be lost—the chances must be enormously against any one emission of individual energy becoming a piece of visible or auditive experience; it may be too faint to make sufficient impression, or the intended recipient may be preoccupied with other matters, and ignore or misinterpret the psychic communication when it comes. But this, after all, is consonant with the evidence and common sense. We are all of us more engaged with the problems of this life than the next; if occult experience were the rule rather than the exception, it would no longer be occult experience.

Here, however, a difficulty arises. The physical stimulus which affects sight, sound, or smell, and by which one individual communicates with another, is a conductor of personal consciousness, but is itself neither personal nor conscious. It is merely an extruded element of that

particular personality which conveys messages by broadcasting them through space. In addition, this physical stimulus emitted by A and received by B no longer exists as part of A but is absorbed by B. Unless, therefore, the physical organism A constantly renews its energy, the time must come when it emits no more, and eventually disappears.

Are we, then to conclude that apparitions and auditions are neither conscious nor personal, but merely the surviving (and possibly disintegrating) elements expressed or expelled from a particular personality? Are we further to conclude that these physical stimuli, which cannot indefinitely be extruded from a dead organism that cannot renew its energy, will be in time absorbed by the living, or scattered into space? In that event, survival would be neither conscious nor personal, but a mere matter of the length of time it takes to dissipate a very limited amount of previously selected energy; the ego would disappear, its disintegrating strands remain a short time coherent, and be eventually absorbed or dispersed.

From the materials before me, it looks rather like it. Most of the apparitions could be explained that way, and some of the auditions—not quite all, perhaps. They suggest the dying embers expressed by individual consciousness, the expelled stimulus which is not conscious itself but only attains consciousness when it is absorbed by another individual organism.

Moreover, the rapid and progressive diminution of these experiences a few days after death seems rather to confirm this assumption. But the occasional exceptions—if we can believe them, and not ascribe them to unconscious memory—are rather a stumbling-block, and if we incline to entertain this theory at all, we can only hold it strictly on probation, while awaiting further and more decisive evidence.

I do not know; the cases on which this statistical enquiry was based were insufficient. But it is to be noted that Myer's famous investigation hardly yielded a more positive

result, and the reports of seances, with their jejune conversations, scarcely bring conviction. Indeed, the limited results of most spiritualist sessions suggests rather the partial tapping of a series of temporarily surviving stimuli broadcast into space than the clear communication of a discarnate intelligence similar to our own.

But it must, of course, be recognised that the very fact that they are so broadcast may involve the loss of some of the major elements of the message. Further, the whole universe is nothing but motion; and if a discarnate intelligence moves more rapidly than ourselves—as every inorganic stimulus must do—it may be very difficult for us to catch its communication.¹ A man who is passing through a railway station on an express train may shout an intelligible and coherent message to a friend on the platform, but the odds are against the full message being heard.

Unfortunately, in spite of a very large quantity (and, it must be added, a still more variable quality) of automatic script, seances, and mediums, I have not yet hit upon a satisfactory method of collating and classifying the more evidential portion of these records; and for the present, therefore, I can do no more than summarise certain tentative conclusions. These are, in brief:

1. That occult experience is not more likely to be received by night than day; it is evenly distributed round the clock.

2. That women are slightly more receptive than men, but that there is, as a whole, little difference between the sexes in this respect.

3. That male apparitions considerably outnumber female; that male apparitions appear to living women and living men (especially of father to son) in almost equal numbers; whereas female apparitions of every kind are fewer.

4. That apparitions and auditions are received by the physical senses, and must consequently be considered as an

¹ Individual psychic energy appears, when discarnate, to be confined to the earth, and to follow the curve of the globe. In that event it is acted on by gravitation, and retains some material property. It seems, according to the records of apparitions, to move with the speed of light, but only within the circle of this planet.

extension of these senses beyond their normal limits ; but that in some few cases these experiences are received by one sense, and interpreted by another.

5. That the expression of desires, regrets, and reproaches is rare ; that these phenomena after death coincide very closely in proportion with a physician's records of expiring wishes at death ; and that this suggests (it certainly does not prove) that the will, or some fragment of the will as we know it, may in some few cases survive, but does not long survive, death. There are some indications that it is more likely to survive premature or violent death (when the energy of the living organism is not exhausted), than natural death in old age, when individual energy is exhausted.

6. Most apparitions and auditions can be interpreted as a surviving inorganic stimulus in disintegration rather than conscious personality ; they seem only to reach the level of consciousness, like other forms of stimulus, when absorbed by some living recipient. This appears to agree with primitive psychic experience, which generally regards the ghost as limited in power or intelligence.

7. Apparitions diminish steadily as the period after death increases. There is no indication of any survival of the fittest ; nor any suggestion of growth, reward, or punishment. This also agrees with primitive experience.

8. The general agreement of these testimonies, and their conformity to natural law or probability, is fairly secure proof that the witnesses were speaking the truth as they saw it. They may, have course, have misinterpreted the evidence, but their report is generally trustworthy.

It cannot be pretended, indeed, that these results solve the question of human survival ; they touch only a small fragment of the problem. But they serve to indicate that this matter, although still unsolved, is not insoluble by further enquiry.

SECTION 2.—DREAMS AND THEIR INTERPRETATION.

Phantoms and ghosts then—whether they are what we take them to be or not—are facts of experience, attested

both by men of eminence and men of the crowd. They were known to primitive man, and formed the basis of his religion ; and we shall now see that in time they gave substance and significance to his dreams. And thus, by an astonishing paradox, this strangest and least probable of all experience known to man has been of importance in determining our conception of the spiritual world.

The magic ship of sleep takes the tired traveller from his own familiar home to a fantastic and uncertain land in which his waking judgments are reversed, and every normal standard changed ; a world in which the trivial suddenly becomes the portentous, the impossible is quietly accepted as the inevitable, the incredible instantly recognised as the obvious. In this weird country, where illusion seems more real than life, the past naturally transacts itself in the present, the future unrolls itself in the past ; this dim and shadowy land of dreams, the haunt and home of mystery and dread, where all set foot and none remain, seems at first sight to belong to an utterly irrational sphere.

But all waking experience shows that what seem to be irrational phenomena are ultimately capable of rational explanation ; and whatever else the dream may be, dreaming is a function of the mind, which to us, at least, is the very citadel of reason. On that account every age has investigated and attempted to interpret its dreams in the light of waking knowledge.

Some have supposed that the mind never sleeps. I doubt if that view can be maintained. The perfect natural sleep is a dreamless sleep, in which sense-impressions from without are reduced to the minimum consistent with the safety of the individual ;¹ the tired consciousness ceases to be aware of

¹ In sleep touch functions mainly in its primitive sense of discriminating heat from cold. Taste, of course, is suspended. Smell is mainly operative for burning, probably as the result of long education of this warning of danger ; it seems as unconscious of an escape of gas—a more recent and a rarer danger—as of the scent of flowers. Sight is educable ; many people sleep perfectly in daylight, and prefer a dim light at night. But a sudden bright light in a dark room will disturb almost any sleeper—another instance of response to possible danger. Hearing is nearest the threshold of consciousness, and hearing will discriminate noises in sleep—e.g., a nurse will snore blissfully through a thunderstorm, but waken instantly

itself or the external world, and rests and recuperates with the body, of which it is the guardian and director.

It would seem, therefore, that dreaming is an indication either of a disturbed or disordered body reacting on the mind—as is palpably the case in nightmare—or of a mind too active and distraught for perfect sleep.

But because it is a function of the mind, dreaming is confined to the higher types of life. The lower and more lethargic animals, in whom mind is little more than embryonic, take their rest, but there is no indication that they dream. The more intelligent mammals, however, and especially hunting dogs in whom the mind is keen and active, appear to dream occasionally; but restless-minded man is an inveterate dreamer. There is no branch of the human family, from the lowest to the highest, which does not dream.

The famous theory of Freud, who has done more to elucidate the subject than any other enquirer, postulates that all dreams are unfulfilled wishes, and interprets most dreams either directly or indirectly as sexual manifestations. The doctrine seems at once too wide and too narrow. It gets into immediate difficulties with the dream of fear and terror, which at one time or another happens to everybody. And while it is true that active consciousness has developed with sex, which must therefore lie at the basis of both our waking and sleeping images and ideas, it is the fact that the normal waking consciousness is occupied with many matters other than sex, and not less the sleeping consciousness. Many dreams celebrated in history can only be interpreted in terms of sex by the most extravagant analogy,¹ and anybody who ransacks his memory for his own dreams will admit this to be true of personal experience.

Three types of dreams may be easily distinguished.

when the baby cries. The same phenomenon occurs in some kinds of hypnotism and trance.

In active life the reaction of consciousness to sound is practically instantaneous; in sleep some seconds may elapse before the sleeper shows signs of being disturbed. This indicates that the whole process of perception and response is at a minimum.

¹ Cf. the dreams of Alexander the Great, Solomon, and Nebuchadnezzar.

I. The ordinary dream is a wish or fear, or combination of both, that reflects some recent experience. In the shadowland of sleep the prisoner dreams of escape, the escaped prisoner of capture; the city merchant dreams of impending bankruptcy or a successful speculation, the actor of the plaudits or hisses of the gallery, the politician of a wonderful programme which attracts every vote and loses none; the miser dreams of the workhouse, the beggar of a palace or a banquet, the barrister dreams of the bench, the country parson of a bishopric, the pretender of becoming King, the King of being deposed or proclaiming himself emperor.

No fancy is too grotesque, no expectation too high, no catastrophe too colossal, for the land of dreams; but this ordinary type of dream is a mere fragmentary recollection and re-enactment of the past, and is at once seen to be no more.¹ It often takes the shape of a wish or fear because the wish or fear is the earliest mental form of that attraction or repulsion which is the common basis of all response to stimulus, whether physical and unconscious or mental and conscious.

It is a relaxed and therefore less developed personality which dreams, and one in which the acquired mental faculty of judgment ceases, at least partially, to function,² and this earlier type of mind does not so much think as find itself attracted or repelled by the things with which it comes in

¹ Perhaps I may cite an absurd dream of my own. One evening I happened to read a review of a history of the American Civil War; a subject in which I have no particular interest. That night I dreamed that the war was still being fought, and I was talking to the combatants. Here was neither wish nor fear—I was merely a spectator. Possibly the neutral attitude was due to the original lack of interest.

It is doubtful whether action in dreams is always appreciably more rapid than in ordinary life. People who talk in their sleep speak no faster than when awake.

² Everybody must have experienced the dream in which one seems to watch one's own familiar self, as it were, from outside—and the behaviour of that individual is sometimes not a little startling and perhaps abhorrent to the onlooker. Dreams of this kind suggest the possibility that our other and more fragmentary selves and subpersonalities suppressed in waking life become conscious in dreams and take temporary charge of the mechanism. While the captain is off duty the cabin-boy goes to the wheel, and strange things happen on board.

contact. The dream is an echo in sleep of the attractions or repulsions of waking life.¹

There is a variation of this primary type in which the events, not of yesterday, but of many years before are lived through again, and the hopes or fears of youth, or even childhood, revive incongruously in middle-age. The grandmother dreams of approaching triumphs at her first ball, the great soldier dreads the approach of a schoolmaster, the famous preacher trembles at the prospect of his first sermon ; the hardened editor posts his first unsolicited manuscript and, more wonderful still, believes once more that editors read every word of every unsolicited manuscript received.

It would seem that dreams of this type could hardly deceive or disturb anybody. They are still an echo of the past, if a remoter past, with no ulterior significance ; even superstition should find nothing to build on here. But we shall find that superstition has in fact erected a very considerable and perhaps permanent building on this insecure foundation.

II. In this primary type of dream we live the past again in the present ; the case is apparently rather different in what may rank as the second type of dream, which represents the future instead of the past as unrolling itself before our eyes. Our perception of time is again obscured, but in the opposite direction ; we seem on waking to have been looking through the telescope from the wrong end.

But this variety of dream, in which the future appears to forecast itself, becomes resolved when analysed once more into the image of our present desires and hopes or dreads. We hope for wealth or fame, and dream that we are already wealthy or famous. We fear the ruin of our country at a crisis in its history, and dream it is already ruined. We hope to win a battle or a cricket match, and dream it is

¹ I may instance an actual dream of a boy of seven. " I was looking for my ball in the next garden, when that horrible gardener chased me and I ran away. But there came a great giant and gobbled him up, and that was a lovely dream."

The first part was a reminiscence of the day before, the second was the ideal but unhappily not the real conclusion. This particular dream combines both fear and desire.

already won. We dread the prospect of death, and dream of ourselves or others as being already dead.¹

These dreams are once more nothing but the repetition by the unquiet mind in sleep of current mental preoccupations, sometimes absurdly or even frightfully exaggerated or distorted. Dreams of this kind are often extraordinarily vivid and impressive, the clearness of the shadow no doubt being a direct reflection of the sharpness of the original waking anxiety.

But the fact that they appear to transact themselves in the future instead of the past manifestly facilitates the interpretation of this type of dream as a portent or prophecy ; and it is obvious that, once taken seriously as an intimation, it will impress itself on the mind as a forecast of ordained fate which it is idle to resist, and so tend directly to influence action in that direction.

The man who dreams he is predestined to win a battle is not likely to order his troops to retreat after the first rebuff, but he who dreams he is predestined to lose is fortified in the half-formed desire to run away, which was probably the original cause of the dream. The dream thus helps to fulfil itself, and one dream which fulfils itself naturally strengthens belief in the significance of all future dreams.²

¹ Freud's interpretation of the dream of death as due to unconscious desire for the death of the person dreamed of seems to me not merely inaccurate but absurd. It is much more easily and naturally explained as the ordinary dream of dread. A loved child is ill, and the next night we wake trembling after a vivid dream that it is dead. Can it really be suggested that the dream is due to unconscious desire for its death ?

Freud attempts to fortify his argument by saying that when people get in our way or annoy us, we are apt to dream of their death. If that were so, we should all dream of dead tax-collectors.

² There are plenty of historic instances to prove that dreams, omens, and premonitions fulfil themselves ; these have naturally been remembered. There are probably still more instances to prove that they do not ; but these have either been dismissed as wrongly interpreted, or forgotten.

There is an instance of a disregarded omen in Huxley's *Life*, which brought no fatal consequences. I once had a sudden premonition that I was about to be killed by an express train passing through a station ; but the train passed, and nothing happened. And a Colonel in the British Army in the late war told me that he dreamed three weeks before or the very hour of his death. The day before the date predicted he was sent into the fighting line, and orders given for an advance the next morning, at the moment foretold. He made all his dispositions and advanced. He did not get even a scratch. There are, however, a few cases of what

In that sense, then, this type of dream may operate as a decisive culmination, rather than a reflection, of waking experience. It necessarily becomes significant; and the moment a dream is regarded as significant, its interpretation becomes a matter of importance. The supernatural or at least superhuman element steps in, and there is a tendency to look upon the dream as a message from a higher power or another world.

History is full of dreams of this kind. Joseph's dream of his brethren bowing down to him in a field, is the typical dream of ambition taking the form of a symbolic forecast of the future; Richard III's dream of disaster at Bosworth, as recounted by Shakespeare, and Calpurnia's dream of the assassination of Julius Caesar, as told by Plutarch, are instances of innumerable dreams of foreboding.¹

But the occult significance of these dreams vanishes the moment they are analysed. In the case of Joseph, for instance, that spoilt youth, already exalted above his brothers in the home, and doubtless resenting their resentment, dreamed of a time when they should acknowledge his superiority. His dream was merely a reflection of his waking thoughts, and its immediate results were disastrous; but years afterwards, when Joseph found himself in a position to do his brothers a favour, it could be claimed that the dream was fulfilled.

Richard's fearful dream of the ghosts of the men he had slain to gain the throne of England was essentially similar. The dream originated nothing; it merely combined his own

appear to be real dreams of premonition. I am not satisfied with the evidence; but that may be because I find them inexplicable.

The ordinary premonition (usually of death or disaster, but sometimes of success) appears to be the sudden fixation, or mental coagulation, of an unexpressed fear or wish that has previously been loosely present in the consciousness. These are sometimes justified by the event, and naturally so; but perhaps more often not.

A premonition of death in battle requires no explanation. A premonition of approaching death in ordinary civil life may be due to the shrinkage of physical resources and the consequent lowering of the will to live reflecting itself in consciousness.

¹ Pharaoh's dream of the seven fat and the seven lean kine—if it has any basis of fact at all, which is doubtful—is probably a poetical way of describing a change in Egyptian economic policy.

remorseful memories and waking cares of the morrow's battle, so that an evil past became the instrument of future retribution. It took dramatic instead of symbolic form, as in Joseph's case; otherwise both dreams were evidently a reflection of conscious thought. Calpurnia's dream, as recorded by Plutarch—not the expanded Shakespearian version, for which the dramatist is his own authority—was probably an echo in her sleep of the contemporary tumults and dangers of Rome, as they affected the ambitious purpose of her husband.

This second type of dream, then, already suggests the mysterious, the occult, the superhuman; and it leads by an easy transition to the third and rarer variety, the dream of revelation.

3. In these cases, some of which have proved of world-wide importance, a man dreams that God has spoken to him, and then, as Hobbes remarked in the seventeenth century, believes that God has spoken to him in a dream.¹ His scepticism was nothing new; "He that setteth his mind on dreams," said the author of Ecclesiasticus, some seventeen centuries before Hobbes, "is one that catcheth at a shadow, and followeth after the wind."

Both dismissed the process with too summary a sneer; the materialist interpretation is in fact as unsatisfactory as the startling hypothesis of direct revelation.

Where the rationalist sees no more than a curious delusion of the mind, the percipient trembles at the very visible finger of God, whose signature has touched his sleep. It is this persuasion of a special significance, this conviction of direct contact with reality, that we have now to examine.

The dream of revelation, like the more primitive type, may be (a) an authentic wish-dream; or (b) it may be symbolic in its imagery, and its directions concealed as allegory or parable; or (c) it may take dramatic form, and its warning or command be sharp and clear.

The perfect example of the first is the famous dream of

¹ That eminent atheist would have been disconcerted to find that the mystic, St. John of the Cross, said precisely the same thing.

Solomon, in which God asks him to choose his own desire. The King chooses wisdom and understanding, not riches and glory—which were already his ; and this alone stamps it as an authentic wish-dream. For we are not so foolish, even in our dreams, as to wish for what we already possess ; and in this case the desire for wisdom was so strong that it built a vivid dream giving divine sanction to its promised fulfilment.

The symbolic dream is illustrated by Jacob's vision of the ladder reaching up to heaven. This was obviously prompted by his approaching marriage ; the physical purpose of his journey was transmuted into spiritual imagery, but the hope of offspring remains prominent in the promise of Bethel.

The dramatic dream of revelation is illustrated by Jacob's wrestling with God at the ford Jabbok,¹ and Samuel's audition of God calling him in the temple.

These dreams register an actual psychic experience, and have, I think, a real significance. What, then, do they signify ?

It is obvious that during sleep we receive but do not expend energy ; and this energy naturally flows down the habitual channels of daily use, and we wake refreshed with strengthened purpose. But when ordinary sleep becomes hypnotic and approximates to trance, this increment of energy overflows and, as it were, floods the whole personality with one controlling idea. It may liberate some submerged fragment of ancestral personality struggling for recognition beneath the surface of consciousness, or strengthen some growing impulse to assert itself as a new dominant. But it still follows the habitual channel of action and thought, and if the man is naturally a visualist he sees a vision ; if an auditive, he hears a voice.

In either case the experience is manifestly real to the percipient. When a man dreams that God speaks to him

¹ This is not related as a dream, but I think there can be no doubt that it was.

Jacob was evidently highly psychic, and also unscrupulous—a not uncommon combination. But his spiritual adventures attest their truthfulness.

he does actually hear a voice. But what seems the voice of God to him is the triumph of a new dominant in his own consciousness.

In Solomon's dream the desire for wisdom, which was still unsatisfied, had at last overpowered the rival wish for glory and riches, which was already glutted. The process behind Samuel's audition is more doubtful; it may represent the triumph of maternal ancestry—his mother had dedicated him to God, apparently before conception—or it may merely have been the influence of religious surroundings on an impressionable child; possibly both in combination. Jacob's wrestling with God probably represents an actual struggle—not indeed with the personal and tribal deity of the patriarch's belief, but with himself in the critical moment when he was to meet the wronged Esau again; in his case the voice of God was the promise of success.

The true dream of revelation, then, reveals a new element of the man to himself; the experience is real to the percipient, the results actual and definite, and he naturally believes and accepts them.

And this belief in the significance of dreams is fortified by the fact that some super-normal psychic experience is actually transacted in sleep, and can be subsequently verified; but these things are not properly dreams at all.¹

In this third type of dream we are evidently on, if not already over, the threshold of the visionary, the recipient and custodian of sacred mysteries, the interpreter or confidant of another world. But in fact the dream of revelation is still a continuation, and a decisive culmination, of waking consciousness; for no man ever dreamed that God spoke or the devil tempted him in a dream unless in his waking moments he had first conceived the idea of God or Satan; nor has any saint dreamed of saints and martyrs of the church whose existence was not already known to him.

The dream is always and everywhere a continuation, a reflection, and occasionally a decisive culmination of

¹ Many of the cases in Flammarion's records of phantoms occurred in sleep; but the psychic dream seems generally to wake the dreamer.

waking consciousness. And, therefore, when man began to dream of the gods he had conceived as persons who visited and counselled and commanded him in sleep, his tentative theology grew more real to him ; and the early belief in the existence of personal gods was fortified by the personal form of the dream-god. The idea was confirmed by the vision, and the shadow henceforth guaranteed the substance.

In that sense, and probably in that sense only, the dream is in an integral part of religious experience, for the authority of practically every religion is founded on the belief of a direct revelation by God to man. It is true that we all believe the impossible in our dreams, but only the great religious positive believes that God has directly spoken to him in sleep. And his belief is founded on the strength of his desire, which seems so signally to fulfil itself, that God should speak to him.

The Dream and Philosophy.—Almost universally, the dream takes dramatic or allegoric form. It presents, often with extraordinary vividness, a fragmentary and distorted image or series of images stored and buried by the past and momentarily resurrected by the present in the grey shadowland of sleep. The mind reverts to the more primitive form of perception, in which everything is concrete and personal, and the abstract does not yet exist. It seldom reaches the level of connected thought in sleep, even in the case of the professional thinker ; the dreams of philosophers do not appear to be more metaphysical than those of other men.

If the dream were no more than a curious and sometimes aberrant psychological phenomenon, it would not be deserving of any particular attention in this enquiry. But the occasional significant exceptions, when it is the culmination and decision rather than the echo of waking experience, give it a different character. And it oddly happens that the dream, which is below the mental level of thought, has deeply influenced the character of human thought ; and by one of the strangest of the many strange paradoxes of history, what seems at first a mere echo and inchoate rever-

beration of waking experience has become a pillar of religious and philosophic reality.

It is a peculiarity of dreams that our perceptions of space and time are hopelessly obscured. We travel hundreds of miles in a second, and visit countries at the Antipodes which are unknown, yet familiar¹; and even in the normal type of dream, when some fragment of the past transacts itself in the present, we have all experienced without surprise the feeling that the dead are alive again.

It is a familiar fact that when men dream of their dead friends or relatives, the dead speak, move, and act as though they were still alive. The event of death eludes the sleeping memory, and is only recalled with the return of waking consciousness. But waking consciousness is also aware that the bodies of our friends and relatives decay after death; and if it accepts the dream—frequently a very real and poignant experience—as true, it can only draw the logical conclusion that in some way the soul has survived the body.

It is probable that this normal type of dream strengthened the belief in apparitions of the dead; for dreams are many, but apparitions few. But the belief in apparitions must in turn have strengthened the belief in the significance of dreams. And this conjecture becomes almost a certainty when we recall that the ghost of tradition is often indistinguishable from the shadowy shapes that haunt our dreams.

Further, the primitive and widespread belief that the soul leaves the body in sleep is easily accounted for by the fact that in our dreams it seems to do so. It is evident that this phenomenon must have reinforced the emergent idea, already implanted by apparitions and normal dreams of the dead, of

¹ This travelling type of dream appears to be an unconscious recollection of a picture or description seen or read in waking hours. Thus we dream we are at Cape Town, or on the moon, with the feeling that we have been there before; it is because we have read an account of life at Cape Town, or a book like Wells' *First Men on the Moon*, some time previously. But nobody dreams he is on an unknown planet—although he might do so, if he had been reading about an unknown planet.

The Burmese believe that the soul can leave the body in sleep, but they make the significant admission that it can only visit places it has been to before. Yoe: *Burma*.

the fundamental distinction between soul and body which has persisted through all the ages ; and that distinction has been of profound importance in human thought.

Practically all religions, and several great schools of philosophy, assume a dualism of spirit and matter as axiomatic. Both have found weighty, if not conclusive, arguments in support of this contention ; but it seems probable that the decisive bias in this direction was given by dreams. The derivative distinction between body and soul, visible and invisible, appears to have been the beginning of all dualistic beliefs in the contrast and conflict between matter and spirit ; but the origin of that distinction seems to have developed from man's reflection on his dreams. If that is so, then the shadows of our sleep have in truth become the substance of our waking thoughts.

The veridical interpretation of our dreams evidently necessitates a dualistic world ; and if, as seems clear, this dualistic conception goes back to the time when man first pondered and mistook the meaning of the shadow-land within his brain, then it goes back almost to the infancy of the human race, and its persistence, however natural, has left an inalienable mark on our conception of reality.

The dualistic theory has produced, or at least accommodated, many beautiful and noble ideas in religion and philosophy, but its underlying tendency has been frankly disastrous, as must be every misinterpretation of reality. It has led churches to take up positions they cannot hold, and tempted philosophy to chase a perpetual will o' the wisp through the wilderness ; it has created an unreal antilogy between spirit and matter, and in consequence persuaded men to ignore the material universe as unworthy of attention. It has despised and discountenanced enquiries into nature as superfluous, it has dismissed matter, and even life, as something evil in itself, and when the common-sense of mankind refused this repellant gospel, it sought food in an invisible and even unattainable abstraction or negation.

This dualistic way of looking at things is obviously the older, as it is still by far the most general cast of thought.

Only after long and difficult mental discipline has man attained a monistic conception of the universe, and the dualistic bias of ancestral belief is constantly reasserting itself.

Yet it would appear that the impetus to the dualism of both religion and philosophy springs in the main from no more substantial source than dreams and the interpretation of dreams. We cannot say that it is not true, but we can at least assert that its origin is no guarantee of truth.

The Dream and Theology.—But dreams have had a not less potent influence on theology. Observation of nature suggested the idea of personal gods—spirits of the stream and wind, and ancestral and tribal divinities; and once the idea was conceived, the insatiable curiosity of man would lead him to explore it, to discuss it, and to think about it in his leisure. But what man talks and thinks of in his waking hours in time intrudes upon his dreams; and the natural wish to see and hold communion with the god he had discovered, would bring its own fulfilment.

On a pregnant night of destiny the sleeping consciousness would dramatise or symbolise the god conceived in waking hours. There would come the dream, the vision, the command; and the vision or command would confirm the idea of which it was in truth no more than a vivid reflection. The wish fulfilled, man would confess with pride the stupendous fact that the gods had revealed themselves, and even condescended to converse, with a soul that had been permitted to leave its bodily habitation in sleep while it visited this strange land of dreams where spirits dwell.

A revelation of this kind would be taken to prove the nascent creed to which it testified, and the influence of dreams on the development of religion can therefore hardly be exaggerated. The religions of the world are not indeed directly founded on our dreams, for at bottom religion is always man's idea of the inner meaning of things, and all our ideas are the fruit of waking consciousness. Religion is therefore ultimately based on perception and intellect; but the apparent assurance of our dreams has biassed, and in some degree, controlled the natural progress of religious

thought, since it is from dreams that man first deduced divine authority for his belief.

Yet manifestly it is not God whom we discover in our dreams. It is not even the shadow of God that appears in these visions of the night ; it is nothing but the shadow of a shadow, a mere reflection of the God that our intellects have constructed from the perceptions of the waking world—that waking world of which we perceive no more than a transitory fragment, but which in its magnificent entirety is itself but a reflection and perhaps the sleeping and unconscious symbol of the true reality of God.

SECTION 3.—VISIONS AND AUDITIONS.

MAGIC and mysticism are the direct successors in religious experience of apparitions and dreams.

We have seen that apparitions and dreams are the basis of super-normal psychic perception and the foundation of religious thought. We have now to follow the eventful record of these experiences, in the form of visions and auditions, and the trance of ecstasy and rapture, to the supreme illumination of the mystic way.

The mind cannot wish for that of which it has no perception. But the perception that here was something not understood led naturally to the desire to understand. The consciousness that this strange psychic country was unknown produced the will to know.

All religion is based on super-normal perception, and built on increase of will ; magic and mysticism are essentially a demand for the larger psychic life, and the magician and the mystic are men who practise this larger life. Others may discover these new territories of the mind by accident ; these explore by design.

From that double source of strength springs the extraordinary increment of personality, the almost superhuman power, of the great religious. The perception of this new territory leads to the wish for possession, and thus provokes desire ; and almost all desire, although it knows it not, is for the continuance or enlargement of the self. Because the

mystic perceives more he desires more, and because he desires more he often achieves more, than other men.

All men draw power from their environment. But our radius is limited by perception, our achievement is confined to our desire. It is because the genius of religion finds no discoverable limit to the range of his perceptions, and looks no longer to a finite but an infinite source, that his personality may become greater than that of other men.

For that reason the influence of magic and mysticism is written large and deep on human history. The seer or visionary has been pitied and persecuted, rebuked and ridiculed, hated and despised. But it has been impossible even for those who laughed, to deny his strength; and the reason is simple—he is one who has become conscious of his relation to the infinite.

No man can be a mystic who is not conscious of that relationship, but its realisation is certainly not confined to the professionally religious. Many of the greatest men of action have had this consciousness of the larger unseen world; most of the great poets and all the major prophets have possessed something of the faculty. And a company which includes among its members Ezekiel and Isaiah, St Paul and the author of the Fourth Gospel, St. Augustine and St. Bernard as well as Dante and Pascal, Shelley and Tennyson, and which can claim kinship with Plato and Plotinus can hardly be dismissed as wholly contemptible.¹

The individual mystic may be both suspected and revered by the crowd, which is alternately sceptical and credulous in face of matters it cannot understand. But the greater personality of the seers and saints has at times given them more power, and more lasting power, than the greatest of emperors and conquerors. Their experience is unique and therefore their power is unique.

¹ Oliver Cromwell and Napoleon are certainly of the company; and I think, Cecil Rhodes.

The Jewish prophets were generally wrong in their temporal predictions. It was their conscious relation to the eternal which gave them their power.

The fact that Rasputin was also a mystic shows that mystical perception and personality is not necessarily allied with good purpose.

Life, Sex, God.—Our belief in God is always the translation into theory of our own, or ancestral knowledge of the perceived facts of life; the God we worship is always a human idea, but it is properly based on the assumption that the real God is much more than a human idea.

Now the implied assurance of apparitions and dreams that man is in some way superior to death leads naturally to the assumption that the gods are gods of life. It becomes their business to protect and assist the multifarious enterprises of man, they are concerned with his sexual and procreative activities, and finally they are expected to assure his soul continuance when the body perishes.

A god of life is manifestly concerned with sex and its endless miracle of physical immortality. From this assumption, then, derive phallic worship and innumerable gods of fertility and reproduction; hence, too, the cosmogonies in which the God of Life does not create matter but either enters it or controls it from without as a living, quickening, ordering spirit. This latter theme is embodied in many religious myths, in which matter is represented as originally existing independently of God, who is conceived as an external spirit of life shaping chaos into order, and not as the Creator or First Cause of subsequent speculation.

This curious but persistent theory sprang naturally and logically from the constructive dualism of early human thought. Fragments, perhaps more than fragments of the idea still survive—the essential theme is still quite clearly discernible in Bergson—but it bears no relation to the assumptions permitted by later knowledge.

But the quickening idea of a God of Life was fruitful of more than theory. At first perhaps it did no more than surround sexual processes with the mystery of religion, attach protective character to amulets and charms, and institute a type of worship which was frankly sexual and social, and often orgiastic in character. Its festivals were intended to celebrate physical desire, their purpose was fulfilled in physical satisfaction.

The intimate association thus established between sexual

and religious emotion has never been broken, nor can it be while a personal God of life and love is worshipped.¹ But the belief that sexual exaltation was an avenue of approach to the divine led directly to the mystery religion with ornate ritual and sacraments for heightening the emotion of its initiates, and this in turn gave rise to the pregnant ideas of spiritual marriage and direct communion with the God invoked.

The Ascetic Bias.— It is clear that what was sought in each case was the heightening and enlargement of the individual or congregational consciousness as an avenue of approach to the divine. But man could not long remain content with sexual emotion in his quest of the unseen. Physical desire was extinguished by physical satisfaction, but this proved increasingly insufficient for the enlarging psychic need of the religious. Physical desire was presently transcended or transmuted into psychic purpose; and those who sought the spiritual world now found it necessary

¹ Cf., the following account of an American revival; Nancy Hanks was the mother of Abraham Lincoln.

"The Hanks girls were great at camp-meetings. I remember one in 1806. I will give you a scene, and if you will then read the books written on the subject you will find some apology for the superstition which was said to be in Abe Lincoln's character. It was at a camp-meeting where a general shout was about to commence. Preparations were being made, and a young lady invited me to stand on the bench at her side where we could see all over the altar. To the right, a strong athletic young man, about twenty-five years of age, was put in trim for the occasion, which was done by divesting him of all his apparel except his shirt and pants. On the left a young lady was being put in trim in much the same manner, so that her clothes would not be in the way, and so that when her combs flew out her hair would go into graceful braids. She, too, was young, not more than twenty perhaps.

"The performance commenced about the same time by the young man on the right and the young lady on the left. Slowly and gracefully they worked their way towards the centre, singing, shouting, kissing—generally their own sex, until at last nearer and nearer they came. When the centre of the altar was reached, the two closed their arms round each other, the man singing and shouting at the top of his voice:

I have my Jesus in my arms,
Sweet as honey, strong as bacon ham.

Just at this moment the young lady holding on my arm whispered: 'They are to be married next week; her name is Hanks.' There are some who don't believe this is true religion inspired by the Holy Spirit; but any man who cannot believe it had better keep it to himself. The Hankses were the finest singers and shouters in our country."

to restrain the will from its natural sexual tendencies in order to exalt it from the physical to the psychic level.

Asceticism is thus the child of spiritual aspiration. The momentous discovery was made that the individual must deny himself physically to fulfil himself spiritually; and this led to an abrupt change, indeed in some cases to a complete reversal, of the earlier attitude. Sex and life remained the basis of popular belief. But the claim of sex was now renounced, and its insistent call resisted and denied, by those who sought initiation into the higher mysteries.¹

This new bias was to produce strange and sometimes repellant results. It undoubtedly strengthened the will by conserving and concentrating the energy of the religious on a single dominant purpose. But those who deny humanity for the love of God are often unsympathetic and occasionally cruel; and having voluntarily disciplined themselves are anxious to discipline others against their will. Even, however, when the ascetic had built his spiritual temple on the conquest of the mutinous flesh, we shall notice later that the sexual impulse sometimes returned unbidden, and its familiar and attractive imagery was mistaken for percipience of another world. This however, was an unconscious turning-back of the heart to the crowded level track of human continuity in time, not the steadfast climb along the solitary path which promises the lonely summit of eternity.

Magic and the Magician.—When desire for knowledge of the unseen again led men forward, it impelled them to explore the strange fertile country apprehended through apparitions and dreams. Man already believed that the soul leaves the body when asleep, and that the dead then become visible and hold converse with the living. But experience reminded him that the dead also appeared to the waking consciousness; and logic would suggest that if need be, they could be constrained to appear by some mortal possessed of superior psychic power.

¹ Cf. Shabistari the Persian mystic: "Find release from humanity's carnal desire, and you will enter the divine life."

The belief in ghosts often produced the ghost to the eye of faith; the universal testimony of folklore is sufficient evidence, and the psychology of faith would expect no less. The origin of faith must always be experience, and man had already experienced his ghosts in apparitions and dreams. But once crude experience is accepted without being weighed in the scale of reason, we are ready to believe what we wish to believe. The mind dwells continually on its thought, the thought takes part of our vitality and becomes animate, and presently its living image projects itself before the mental vision, and is received as an objective fact. And thus we deceive ourselves; for hallucination is always sincere.

But there were also many cases where the desired apparition failed to appear; spirits were called from the vasty deep, but would not come when they were called. The faith or will of the individual was not strong enough, or he doubted his power to raise the ghost—in itself sufficient reason for failure. In these instances, when it was still desired to consult the dead, it was necessary to call in a stronger will that could compel the spirit to reveal itself.¹

An adept in the animistic art would be resorted to—one who had trained and exalted the will by strict and rigorous discipline of mind and body. By an impressive ritual of mystery and incantation the magician played upon the emotions of his client; and the will to believe in an apparition being manifestly present in those who consulted the wonder-worker, it is not very extraordinary that the professional generally succeeded where the amateur had previously failed.

The magician was necessarily a strong personality, whose concentrated and therefore more potent will hypnotised his audience into the belief that they saw and heard spirits from another world. The witch of Endor is the classic case. A combination of fear and hope—the strongest causes of emotion, since one is the source of despair, the other of

¹ The primitive ghost was practically impotent, a shadow rather than a substance; cf. the lament of Achilles. The same tradition held in magic and witchcraft; the living necromancer is represented as having power over the reluctant but impotent dead.

ecstasy—impelled Saul to consult the wise woman ; and his belief, heightened by mystery and ceremonial, produced the ghost of Samuel.¹

Innumerable methods were used by practitioners of the occult arts, but three things were everywhere necessary to success. I. The will to believe on the part of the audience. II. The use of symbolic ritual to deepen the emotions of the percipient. III. The practice of asceticism by the magician, priest, wizard, or medicine-man who guarded the sacred secrets.

Excitement, propinquity, and the atmosphere of awe increased the emotional and depressed the rational faculties of the spectator, whose role was passive ; asceticism exalted the individual will of the practitioner, whose role was active. On these postulates depends the success of every form of magic and witchcraft.

In these strange experiments many failed, but some undeniably succeeded. And in these obscure and difficult frontier territories of the will we touch, or seem about to touch a new mental force, a power of thought not hitherto manifest ; a state of consciousness not previously attained, an enlargement or development of psychic faculty which raises the possessor above the crowd, and enables him from his greater height to survey a wider horizon.

Abundant evidence exists that the possession of superior or at least abnormal psychic power, a gift at once precious and dangerous to the individual, was often accepted by the multitude as a token of divine (occasionally diabolic) favour, and therefore as a potential asset in political no less than religious concerns. There was nothing irrational in this attitude, although its consequences were usually more akin to superstition than science ; for only by taking advantage of profitable variations in the individual can the mass rise above its existing level.

¹ The witch of Endor has puzzled and sometimes scandalised the doctors of the Church. Tertullian held that a lying dream appeared to Saul in Samuel's likeness ; but Increase Mather ingeniously argues that " the appearing Samuel was seen ascending out of the earth, whereas the true Samuel would rather have appeared descending from heaven."

The psychic personality is, therefore, one which transcends the ordinary physical or mental range of his contemporaries. He enlarges the normal radius of perception and consciousness and will; he sees, or at least believes he sees, what others do not see, and hears what others do not hear.

Whether he interprets his experiences correctly is another matter. But in all these psychic issues, as in ordinary physical affairs, perception precedes proof, and, therefore, faith always runs ahead of reason. Men see what they have power to see, in spiritual as in other things. Some are altogether impercipient; others relate experiences so strange as to be incredible.

Unfortunately another consideration is forced upon the student of these records. Religious experience is by no means rare; it is also by no means trustworthy. The sincerity of the percipient may be unquestionable, and the vision or audition of another world more real to him than the sights and sounds of this present physical earth. But while men see what they have power to see, they sometimes imagine they see what they wish to see. Desire fulfils itself; and therefore faith, which runs ahead of reason, is always subject in the end to reason.

It is for this reason that religion, the child of magic and philosophy, outgrows the purely animistic stage. The prophet or magician is the spiritual explorer, the priest is the rational judge or administrator; the one is the pioneer who seeks a new country, the other a colonist who regulates its bounds.

The recognition, at least the symbolism, of magic still indeed survives in the ceremonies of the churches, but this becomes disguised and transmuted in the official ritual of an established institution.¹ And the seer, whose inspiration must be individual and direct, is controlled, discounted, and possibly in the end repudiated by the regular priesthood.²

¹ It is true that magical incantations as well as meaningless rites and ceremonies have often been preserved. But they once had a meaning.

² This is clearly shown by the Islamic legend that magic was introduced by fallen angels, who (very wisely) chose earth rather than hell for their

History shows that a religion which is thus rationalising itself may easily run ahead of public opinion, which clings steadfastly to its personal ghosts and animistic theory. The God of thinking men has always been different from the rude image of the worshipping mob. Thought being progressive, the theological idea is continually reconstructed ;¹ but since most men are mentally conservative, the popular concept of the contemporary God is always intellectually a little behind the time.

But while superstition (which is nothing but the super-seded science and philosophy of the past) may be driven underground by authority and reason, the roots of old tradition remain alive and strong in the popular mind, and ready to sprout again in favourable conditions ; and primitive belief, which is at bottom a well-founded but uncritical recognition of superior psychic power, easily revives under stimulus.²

Religion, however, is essentially a quest of the unseen world ; it is dependent on personal experience for continued vitality, and consequently it must progress if it is to live. It can, therefore, never wholly rationalise itself. Reason will ultimately assess its revelations, but perception must first discover the unknown, and the basis of all religious faith and discovery is always psychic perception. As religion advances, then, the magician disappears and the mystic takes his place.

The Mystical Element in Religion.—The mystic is at first

abode. They are suspended by the feet somewhere near the Tower of Babel.

¹ Macaulay remarks, with his usual irritating assurance, that theology is not a progressive science. Never was a greater error. Theology has always been too hasty in its assumptions and too certain in its conclusions, but no science has been more progressive. There is really no comparison between the crude animistic concepts of primitive man or the tribal gods of early society and the philosophical foundations of the great religions of the world.

Perhaps the best proof of the progress of man, which the pessimists have sometimes doubted, is the fact that through the ages he is slowly attaining a larger idea of God.

² There were many instances of this during and since the Great War. Cf., the Angels of Mons and belief in witchcraft—which, in spite of Lecky's dogmatism, is still widespread in country districts.

no more than a higher type of magician ; both are supernatural percipients who are conscious of a greater world. But the mystic, unlike the magician, has no audience to impress. He seeks no utilitarian end ; no taint of commerce surrounds his excursions into the unknown. There is no longer the element of charlatanry in his record ;¹ he can, therefore, dispense with the symbols, the diagrams, the incantations, and other stage-properties of his predecessors.

The essential weapon of the mystic is prayer. This is the spiritual sword of the contemplative, the invincible Excalibur by which he conquers. Without psychic perception he is nothing, without prayer he can do nothing ; but by faith in prayer he is persuaded that he can do everything.

The Nature of Prayer.—Now it is quite impossible to deny the efficacy of prayer, or its validity as a spiritual instrument of immense potency. Men do pray, and they do get results from prayer. Whether their prayers are answered in the sense in which they use the word or not, prayer produces direct and immediate consequences. It is natural, and indeed inevitable, that it should do so. Prayer is a specific and definite act, and all action entails specific and definite consequences.

The obvious effect of prayer is on the one who prays, and the more intense the prayer the greater the effect will be. Prayer is from its nature a wish, an aspiration, a desire ;² and the more strongly we wish for a thing the more likely we are to obtain it.

¹ This does not, of course, preclude the possibility of the mystic being used by others for unworthy purposes. Cf., the story of the Nun of Kent, an ordinary visionary who was persuaded by the guidance of her superiors to interfere in politics, and who denounced Henry VIII, and foretold his death. She was imprisoned, confessed, and hanged. Sir Thomas More described her book of revelations as "a right poor production, such as any simple woman might speak of her own wit."

St. Catherine of Siena (a much greater woman) was not very fortunate in her excursions into papal politics. But there is no question of her sincerity.

² The most primitive form of prayer is an individual wish described by Skeat, *Malay Magic*. Prayer is "still in the unethical state among the Malays ; no request for anything but personal advantages of a material character being ever, so far as I am aware, preferred by the worshipper. The efficacy of prayer is often supposed to be enhanced by repetition."

Prayer concentrates the will on one definite purpose, which it renders dominant if the prayer is sufficiently potent, for our dominant desire becomes necessity; and, therefore, the more fervent the prayer, the more likely it is to be answered—that is, to produce the effect we desire. Prayer is thus an act of mental will, and like any other mental action, it may in time control the mind, and even affect the body.¹

Prayer is from its very nature a recognition of a power outside ourselves; and some have supposed that prayer in itself implies a direct absorption of energy from the infinite by the one who prays. This seems at first sight a not improbable theory; but the correctness of that view is doubtful, at least as regards the normal type of prayer. The problem is a difficult one, for by concentrating the will in one direction prayer certainly secures greater efficiency in that particular direction; but it seems not directly of itself to increase the total power of the organism—indeed, it may rather limit it, since men will pray to be delivered from temptation, and the acquired habit of prayer will train and in the end constrain the mind to one particular line of development, while inhibiting other potentialities.²

Further, since prayer is essentially action, it must be an expenditure rather than an increment of energy; only in the mystic does it seem to take on a different character in the prayer of meditation and recollection. But this is not prayer in the ordinary sense at all. Prayer may be both the

¹ Cf., the phenomena of stigmata. Similarly, the Lady Juliana of Norwich prayed for an illness—and got it.

But there are also innumerable instances in every day life in which men have prayed for relief from pain, and their sufferings have diminished. And the records of saints (and also heretics) put to the torture shows that prayer enables them to bear sufferings that otherwise would have been intolerable.

² It has been remarked by the religious that the regular practice of prayer brings peace. But this is true of all other habitual acts. "I spoke to Morley once," writes T. P. O'Connor, "of the strange tranquillity that came to a man when he sat down to his desk. He agreed, saying that when he woke so depressed as almost to be ready to cut his throat, he had only to sit down with his pen in his hand, and everything became quite calm within him."

Substitute monk for journalist, prayer for pen, and the parallel is complete,

prologue and the sequel to contemplation ; but in the last analysis its character is clearly active, not contemplative. Prayer is not the perception but the pursuit of the mystical purpose ; it is the confession of mystical desire, whereas contemplation is the fulfilment both of the mystical prayer and purpose. Without prayer indeed the mystic cannot possess the kingdom of the soul, but without perception he would not even know there was a kingdom to possess. In contemplation, then, he absorbs energy, but in prayer he directs that energy according to his desire ; for with the mystic as with others, perception must precede absorption, and absorption precede expression. Prayer is ultimately, therefore, subjective action, a means to an end ; for prayer, says Jeremy Taylor truly, " is only the body of the bird—desires are its wings."

Men wish for many things, and consequently pray for many things. The soldier prays for victory, the sick for health, the weak for strength, the strong for success ; each according to his belief fortifies his will and finds his prayer answered. Desire fulfils itself ; and the essence of all desire fulfilled is satisfaction. The questing and restless spirit achieves its end, and for the time being is at peace with itself and the world.

Prayer with most men is occasional and spasmodic,¹ and for that reason they obtain little from prayer. But the mystic's whole life is a life of prayer ; and therefore the results in his case are proportionately greater.

His petition is always for the vision of the unseen world and the realisation of God, and he too attains his end. Whether it be illusion or reality, the mere shadow of a dream or the blinding light of truth, fulfilment of desire still brings peace and certainty to the seeker after God.

¹ Cf., William James, who said he felt unnatural when he prayed. This may mean that he was generally content with life as it was.

But I doubt if philosophers often pray ; at least I have discovered no indications of it in such biographies as I have read.

The belief in the efficacy of prayer is, however, very widespread. The agnostic Morley (who had strong religious leanings) said one day to a friend, " Pray for me." But the case for the objective effect of prayer is far less secure than for its subjective influence.

But man no sooner finds one wish fulfilled than he discovers another ; it is because this is so that he advances. Discontent is the secret of human progress. And this is true even of the seeker after God. The individual finds certainty and peace.¹ But the revelation or discovery which to him is final and sufficient is final and sufficient only for himself. It does not satisfy his successors, to whom it is at most one step forward on the everlasting way of enlightenment. They too want certainty and peace, but they too can only find fulfilment of desire after their own spiritual struggle brings them the assurance which they seek. They must have direct experience or perish—and this is the mark of the true mystic, that nothing but direct experience will avail him.

Mystical Visions and Auditions.—Prayer, however, is neither the first step nor the last upon the mystic way ; for prayer is necessarily a mental act, whereas mysticism begins and ends in supernormal physical or psychic perception, which alters the normal register of consciousness. And in this respect it shows itself akin to that faculty of abnormal or extra-perception which was defined in a previous chapter as the quality of genius. Mysticism is in fact religious genius.

Now in the main the mystic, like the artist and musician, uses two only of the senses—sight and hearing—and those only at the outset of his journey.²

The chronicles of mysticism begin, where those of magic end, in visions and auditions. Many of these records suffer from the pious zeal of credulous or inventive historians ;

¹ Since no man ever prayed for what he did not want, prayer operates to clarify the will, which of itself tends to produce certainty and peace. The ordinary weakness of indecision is due to our not putting our full strength into a course of which we are doubtful ; we keep some energy in reserve against the possibility that we are wrong. Prayer helps these doubts to vanish. In the same way a man who broods long over a course of action tends to convince himself it is the right course.

² St. John of the Cross, it is true, catalogues delightful sensations of touch, pleasant taste, and fragrant smells, as among mystical phenomena, and there are various allusions to these in the literature of mystical experience. But the bulk of mystical revelation, as of spiritualist phenomena, relies on sight and hearing.

all biographers are liars by accident or design, but the religious biographer is easily the worst of his kind.¹ Large deductions have to be made from many legends sanctified by tradition ;² but a considerable number remain whose authority, or at least sincerity, can hardly be challenged without rejecting all historical evidence. It will suffice to quote some few noteworthy cases.

(A) In the legend of St. Catherine of Siena it is written that she had a vision of Christ seated on an imperial throne, clad in papal robes, wearing the Roman tiara, and attended by Peter, Paul, and John. He smiled at Catherine and blessed her, and the girl was immediately lost in ecstasy.

This vision is said to have occurred in her sixth year. It may have been involuntary or, in the case of so precocious a child, the result of prayer.³

When St. Francis of Assisi was converted in a church (and therefore presumably after prayer) he heard a voice speaking from the crucifix, "Go, repair my house, the which as thou seest is falling into decay."

And in the *Fioretti* St. Peter and St. Paul are said to have appeared to St. Francis and his companions, and even "the blessed Christ in the similitude and form of a most fair youth, who blessed them and filled them with so much grace and sweetness that they were all rapt out of themselves, and

¹ If anybody thinks this remark too strong, let him read Bacci's *Life of St. Philip Neri*, in which a thin stream of fact meanders through a land of perpetual miracle. It is just possible that greater nonsense has been written, hardly conceivable that it has ever been published.

The Biographies of Washington and Lincoln, however, show the same myth-making tendency in politics.

² St. Bernard was once annoyed by Satan on a journey. With admirable resource, the saint changed the devil into a carriage wheel, and made him accompany the monastic vehicle to Rome. But perhaps the prince of darkness as the fifth wheel of the coach is more probable than most miracles.

These legends are common to all religions. The Buddhist saint Tsou-Ka-pa is popularly believed to have ascended into heaven ; and there is a story of another Buddhist contemplative who feared the misery of the world into which he was to be born so much that he remained sixty years in his mother's womb in profound meditation. He then realised, a little late in the day, that he was prolonging the suffering of his parent by his tardiness, and was born with grey hair.

³ Similarly, the poet Blake saw "God put his head to the window" when he was four ; also "the prophet Ezekiel under a tree in the fields."

lay as though dead and insensible to the things of this world."

St. Dominic prayed fervently to St. Peter and St. Paul in Rome. Presently those two saints appeared to him in person, and gave him a book and a staff.

(B) But not all the visions of the mystic are sanctified. In the hour of darkness the terrors of the damned are seen, and evil thoughts and sensual temptations return.

St. Teresa once saw a great fight between angels and devils in the choir of her church ; on another occasion she records a grim vision of hell. " The entrance seemed by a long and narrow pass, like a furnace, very low, dark, and close ; the ground saturated with water, mere mud, exceedingly foul, sending forth pestilential odours, and covered with loathsome vermin."

St. Catherine of Siena was tormented by fiends, who filled her cell and " with obscene words and gestures invited her to lust " ; she fled, but they pursued her even in the church where she took refuge. And Juliana of Norwich saw Satan, a red figure with black freckles, who clutched at her throat with his paws.

St. Teresa was also visited by the archfiend in an abominable shape. " I was in great terror," wrote the saint, and " made the sign of the Cross as well as I could, and then the form vanished, but it reappeared immediately. This occurred twice." On the second occasion she threw holy water at him, and completed his defeat ; but another time he came and sat on her prayer-book to prevent her devotions. And once at least he left a smell of brimstone behind.¹

(C) In these latter cases the sensual element is obvious, and the percipient, accustomed to repress the instinct of sex, struggles and resists the temptation ; in other cases it

¹ Similarly Tylor notes the " description given by Zulu converts of the dreadful creatures they see in moments of intense religious exaltation, the snake with great eyes and very fearful, the leopard, stealing stealthily, the enemy approaching with his assegai—these coming one after another to the place where the man has gone to pray in secret, and striving to frighten him from his knees."

assumes sublimated and even sanctified aspect. One of the earliest forms of religious exaltation, as we saw, was erotic, and nature still asserts itself in the solitary cell. Sometimes the seeker after mystical communion adopts the accent, the cadence, and at times the very imagery of sexual love.

This is particularly the case with the women saints of the Church. "I saw Him and sought Him" says Juliana of Norwich simply; "I had Him and I wanted Him."

"I chased thee, for in this was my pleasure," Mechthild of Magdeburg was assured by Divine Love; "I captured thee, for this was my desire. I bound thee, and I rejoice in thy bonds; I have wounded thee, that thou mayest be united to me. If I gave thee blows, it was that I might be possessed of thee."

And the same voice assured her: "I cause thee extreme pain of body. If I gave myself to thee as often as thou wouldst have me, I should deprive myself of the sweet shelter I have of thee in this world, for a thousand bodies could not protect a loving soul from her desire. Therefore the higher the love the greater the pain."

Rhapsodies of this type reach their height in the mystical marriage of St. Catherine of Siena, when "the Only Begotten of God drew out a ring of gold; and placing this ring upon the ring finger of Catherine's right hand, He said, 'Lo, I espouse thee to myself.'" And there appeared, "while the Lord was yet speaking, the most glorious Virgin, His Mother, the most blessed John Evangelist, the glorious apostle Paul, and the most holy Dominic, father of her order; and with these the prophet David, who had the psaltery set to music in his hands, and played with most sweet melody."¹

There is no doubt that these experiences were real to the

¹ The Blessed Angela of Foligno was assured by the Holy Ghost that He loved her better than anybody else in that valley; and Joanna Southcott expected to bring forth the Messiah.

I hope one may prefer without scandal the more natural accents of Heloise to Abelard: "As for me, I have ever feared offending thee rather than God; thee I strive to please rather than Him." This may be impious, but it is extraordinarily pathetic.

percipients. The stamp of truth is on their words ; they describe what they saw and heard. But the language and imagery also leave no doubt that the true source of these experiences was neither God nor devil, but an uprush of long repressed sexual desire obtruding itself unbidden on the consciousness.¹

Subjective Character of these Experiences.—To many of the saints the vision or audition has seemed to demonstrate its own authenticity. But with the greater mystics the silver scales of reason follow hard upon the glistening gold of experience, and these have always realised the possibility of self-deception.

The austere St. Teresa, who was undoubtedly clairvoyant, doubted some of her visions. Her contemporary, the magnificent Loyola, refused to believe many of the marvellous apparitions related to him by the more credulous folk of the day. Eckhart is equally emphatic ; visions and locutions are often "tricks of the soul indulging in comfortable intuitions of divinity and answering herself by a sort of reflex action." And St. John of the Cross, a profound psychologist as well as a great mystic, is frankly sceptical. Visions, he declares, are childish toys probably sent by the devil.² "Anyone who has barely begun to meditate," he wrote, "if he becomes conscious of these words (auditions) during his self-recollection, pronounces them to be the word of God, and considering them to be so, says 'God has spoken to me,' or, 'I have had an answer from God.' But it is not

¹ Male visions of this kind are more rare, at least more rarely recorded. But the Blessed Suso had a vision of the Virgin and Child ; he saw its "beautiful little eyes, and kissed its tender little mouth." These are the accents of frustrated fatherhood.

The idea of spiritual marriage was, of course, by no means novel ; it may be a sublimated development of the sexual initiation of earlier religion. It occurs in Buddhism, where monastic vows are regarded as marriage to the Church ; and in Plotinus ("the soul loves God, wishing to be united to him, being as it were the desire of a noble virgin to be united to a noble love"), St. Bernard, and many others. But in spite of mystical devotion to the voluptuous Song of Solomon, it is usually a symbol or simile devoid of erotic imagery.

Women, in fact, can think of God sometimes as man, but man from his opposite standpoint finds it difficult to think of God as woman.

² Molinos agrees that visions are snares of the devil.

true; such an one has only been speaking to himself. Besides, affection and desire for these words, which men encourage, cause them to reply to themselves, and then to imagine that God has spoken."¹

The diagnosis seems substantially accurate. The mystic sees a vision of St. Joseph or the Virgin Mary, or any one of a thousand saints in the calendar. But how does he know it is St. Joseph or the Virgin whom he sees?

The general process is not obscure. "Nothing enters the imagination but through the exterior senses; the eye must have seen, or the ear heard, or the other senses first have become cognisant of all that is in it," says St. John of the Cross; and this is true of the contemplative as of the active man.

The contemplative selects, consciously or unconsciously, from the mass of religious records the saints whose character appeals most to his sympathies. This is the objective source of future experience. He now meditates upon their lives and, in the language of pious biography, becomes devoted to their worship—that is to say, his mind is filled and eventually becomes obsessed with that particular idea. He naturally forms a mental image of the object of his prayers and dramatises it; and in time that image projects itself upon his consciousness as a living thing. This phenomenon is not confined to religion, but is common to most imaginative men.²

¹ Cf. analysis of the dream of revelation, section 2.

Another vision may be cited. In 1262 the Virgin Mary appeared to St. Simon Stock advising appeal to the Pope, and promised that nobody who died in the Carmelite habit should suffer everlasting fire. Subsequently she appeared to the Pope, and promised that those who fulfilled certain conditions in addition to wearing the Carmelite habit should not remain in purgatory beyond the first Saturday after death. Steele, *Monasteries and Religious Houses*.

In our own time, an angel appeared to Anton Lang (the Christ of the Passion Play) in a dream, and rebuked him for playing before heretics—"damned Americans who took no pity on Germany in the war."—*Daily Herald*, 14 March, 1924.

These cases are obviously subjective.

² Cf., Wagner (who was not a mystic) on the perception of a character in music-drama. "Let him imagine the character in a dim light, where he can see only the glance of the eyes. If this speaks to him, the character will perhaps get into motion—which may perhaps frighten him, but which

But the image naturally accords with the preconception, and the fact that it does so is taken as proof that it is genuine. All prayer is psychologically a wish; and the religious vision, like the dream, is a wish that has fulfilled itself.¹

And in this connection it is an impressive fact that none of the seers has seen a saint whose existence was unknown to the Church; while unfortunately it is the Christian mystics who have seen the Christian saints, the Moslem mystics who have seen the Moslem saints. Mohammed himself had visions "clear as the morning dawn." But the long roll of Christian martyrs and other ghostly witnesses of the older faith forebore the priceless opportunity of visiting and perhaps converting the great infidel of Mecca.²

In this, then, the religious vision or audition of the saints differs fundamentally from apparitions or phantoms of the dead. The former springs from desire, the latter often comes unbidden. The former is subjective, the latter objective. And we shall see later that the vision and audition of the saints may be interpreted as the typical form of mystical action that follows contemplation; it is the relief and

he must endure. At last its lips move, the mouth is opened, and a voice from the spirit tells him something quite real, entirely intelligible, but also so unheard that it awakens him from his dream. Everything has vanished, but in his mind's ear the sounds continue; he has had an idea, a so-called musical motive. . . . It is his motive, given to him as his own by that remarkable apparition, during the wonderful moment of his trance."

Substitute religion for music, and the parallel is exact.

Shelley also had a vision of a woman with eyes instead of nipples. This occurred after Byron had been reading aloud the lines about a lady's breast, from *Christabel*. The objective source of subjective hallucination cannot always be so easily traced.

¹ Sometimes the wish-character of the vision is too clear to be mistaken for anything else, unless prophecy is imputed to the visionary. Thus when the Pope of the day proclaimed a crusade, and long before the armies marched, St. Catherine of Siena had visions of martyrs offering up their blood for the Holy Land, and devotees of Mammon assuming the sign of the Cross. (They often do—for business purposes.)

² A great Mohammedan mystic who was translated to Paradise in a vision had the good fortune to meet Plato, "whom the formal theologians account an infidel, but I saw that he filled the unseen world with light and that his rank was such as few among the saints possess." But the Platonic philosophy was known in Persia.

The same mystic, in a vision of hell, discovered that some of the damned were more excellent than many of the saints in Paradise—a revelation long anticipated by the unorthodox.

discharge of an overfull consciousness in ecstasy and rapture.

But the judgment of St. John of the Cross, though it disposes of many visions as hallucination due to auto-suggestion, does not cover all the phenomena.

A.—Probably some of the conversations and conflicts with saints and devils, of which mysticism is so fertile, are really instances of secondary or sub-personalities asserting themselves in consciousness; and the conviction of sin, acute in most but not all cases,¹ may sometimes be a cause and sometimes an effect of these rivalries of multiple personality, a realisation of divided will and incomplete integration of the soul.²

And in this connection a contrast is noticeable between visions and auditions. The vision comes through the most dominant of the senses, and is generally due to the main consciousness, or can be traced to something previously seen or pondered. But an emergent sub-personality seems more generally to take auditive form, and the message thus conveyed from an unfamiliar fraction of the ego may on that account be novel, or even apparently contrary to the natural tendency or disposition of the percipient.

It arises from a hitherto unknown and probably deeper stratum of the individual, which is slowly and painfully struggling into the main consciousness. If and when it has fully asserted itself, and gained control of the mental machinery, these insistent voices will cease. They are no longer needed.³

¹ There seems to have been no period of despair in the lives of St. Bernard and St. Dominic. Both came of saintly families, and were dedicated to the church from the cradle.

² A great deal of Pauline theology, for example, is founded on the theory of the divided will—the conflict between the law of the spirit and the law of the members—and experience shows this to be psychologically true. Paul himself experienced it; the emphatic affirmatives and denials of Peter make him an equally notable example.

³ Cf. the auditions of Joan of Arc, which impelled her to take action contrary to her natural disposition, sex, and station in life.

"Once, when seated in a mosque," says a Moslem mystic, "the women went up to the roof and bespattered me with filth; and still I heard a voice saying, 'Is not thy Lord enough for thee?'" Here the audition

But there is another and more important remanet of these phenomena.

B.—There are times when the senses are peculiarly susceptible to impressions of the external world ; there are moments, familiar to us all, when we seem to see or hear a little more than lies within the customary range. Now the senses have in fact enlarged their scope through the ages—the human eye has developed, and enlarged the brain ; and the ear, primitive in fishes, is more developed in amphibia, and progressively advancing in the mammalian series. There is no reason to suppose that this process of extension is at an end ; and it is obvious that every such extension must affect consciousness. If our eyes could see the whole of physical nature instead of a mere fraction of its panorama, and our ears distinguish every sound in that amazing orchestra, a very different universe would be present to our minds.¹

In many cases the revelation of the mystic seems due to this enlargement of normal sense-perception ; his eye or ear momentarily becomes aware of a wider range of light or sound than the customarily limited selection of ordinary utility. The authenticated cases of clairvoyance and the perhaps rather rarer instances of clairsaudience appear also

is the deeper mystical self that was struggling upwards rebuking the natural tendencies of the conscious ego.

Forbes Winslow (*Anatomy of Suicide*) relates the case of one who heard a voice saying, " My son, come and seat thyself by my side." He opened the window to obey, fell down and broke his leg. When carried to bed, he expressed the greatest astonishment at having jumped out.

But there are also many cases in which the audition is influenced by the main consciousness ; the voice which St. Augustine heard told him to take a book, an action entirely natural to a scholar.

¹ Again and again the complaint appears in mystical literature that our senses are selective and imperfect. " On thy side," says Beatrice to Dante in Paradise, " is the defect, that thy vision cannot rise so high."

And to Blake it seemed that " if the doors of perception were cleansed everything would appear to man as it is, infinite."

Shakespeare (who was no mystic) has the same thought :—

" Such harmony is in immortal souls ;
But while this muddy vesture of decay
Doth grossly close it in, we cannot hear it."

The selective nature of the senses is, of course, confirmed by physical science ; see Chapter 1.

to come within this category of super-normal physical perception. As in the case of St. Teresa, the same person may be psychic as well as mystic.

Any such enlargement of the senses must, of course, be peculiarly liable to misinterpretation. The mind registers the perception, but has no longer a standard of comparison ; it is merely aware of strange wonders which it cannot understand. If the ear of a fish, for example, were to develop a cochlea, it would hear far more than at present, but would be at a loss to interpret these novel sounds. Only after a long series of experiments of the trial-and-error kind can the mind advance to the level at which it evaluates correctly increased sense-perception ; the mental faculties lag behind the physical. In the super-normal phenomena common to mystics and others, we seem at times to be in presence of precisely such a condition. The senses take in more than the mind can digest, and the mental faculties naturally interpret new perception along the lines of customary thought. The mystic is one who is conscious of his relation to the infinite, but he interprets his first perceptions of the new and unknown world in terms of the old and known, the personal and familiar.

But ultimately it may be these transient and still fragmentary glimpses of the unknown that permit us to advance. This new world seems so utterly dissimilar from our known section of the universe that the percipient believes it to be something wholly different and spiritual ; yet in fact it is an enlargement or extension of our consciousness of this present physical world. But the first travellers in these realms are like men who cross strange seas, and judge an unknown continent from the prospect of a distant headland and a few shadowy and misinterpreted figures on the shore.

Religion has outgrown these visions of saints and angels, it has not formally condemned them ; indeed, it is inclined to dwell lovingly on these early experiences, as the grown man recalls the tender memories of childhood days, and his first imaginings of the greater world. This is the poetry, not the science, of belief ; the stepping-stones across the

river of faith, not the high flight to the mountains of truth. To this greater ascent of the soul we shall come later.

C.—The great mystic is rare, but the mystical faculty, at least in this preliminary stage, is not uncommon. It is often present in childhood, and may develop in adolescence ; in that event the possessor will possibly go far on the lonely road of the soul, and for ever show himself different from other men. But these are exceptions. More frequently than not the faculty tends to atrophy through preoccupation with the personal or material issues that increasingly engross the middle years of life ; and, neglected or consciously suppressed, it may perish completely. Mystical potentiality is frequent ; mystical achievement is rare.¹

One indication that the latent power is fairly common is that it is psychically contagious ; one mystic makes many. But sooner or later every outburst of mysticism dies down. It demands something more, at least something different from the normal consciousness and ordinary mental standard. Men have these perceptions, but they lack the will to follow them up. Except in those few cases where mystical perception is so potent that it renders all else subsidiary to its claim, this latent faculty generally demands an external stimulus before it can develop.

But mere hallucination, or even enlargement of the normal sense-perceptions, would not carry the mystic far. In any event, it would not carry him beyond this present physical world, which his dualistic philosophy assures him from the beginning he must transcend.

Visions and auditions are therefore but the first rungs of a ladder which, it is said, may lead direct to God. And it is claimed that the later stages of the mystic way are not

¹ Some men seem entirely lacking in mystical perception. Neither Macaulay nor Sismondi, for example, in their criticism of the *Divine Comedy*, show the least understanding of the mysticism of Dante. Hallam betrays a similar limitation in his comments on St. Francis of Assisi. And Gibbon dismisses St. Catherine of Siena curtly as a "visionary female." True enough, as it would be to describe Shakespeare as an adapter of old stories, or Nelson as an amatory sailor. But hopelessly inadequate.

through the physical avenue of the senses at all, but through the purely psychic path of the inner consciousness.

Here, then, comes a break, or rather a change of method in the quest of the unseen. A period is reached in the progress of the greater mystics when visions are superfluous, or even a handicap on the onward way. The senses seem henceforth less receptive, the external world no longer obtrudes itself, physical media are for the time being closed, and the mind becomes abstracted and absorbed in itself. An intense concentration fills the soul, for the practice and perfection of the mystical purpose involve, at least seem to involve, an absolute inversion of the normal way of consciousness.

The ordinary man may profess dualism as an act of faith, but in practice he is a monist. He ignores the possible existence of a spiritual world, and looks outward to explore the external world. But with the mystic this process is reversed. So far as may be he ignores the external world, and explores the spiritual world which he finds—and is convinced he can only find—within. The mind is no longer occupied with the visible and external, but concentrated on the invisible and internal.

We have now to see what this process means.

SECTION 4.—THE SUMMIT OF THE MYSTIC WAY

VISIONS and auditions of saints and angels are stages and, according to some, necessary stages in the education of the soul. But there comes a time when these personal and finite things give way to the impersonal and infinite; and ultimately the mystic seeks one thing, and one thing only—communion and union with God. Henceforth in his highest moments he has no will, save the will to know God; no desire, save the desire to discover God; no knowledge, save the knowledge that leads to, and is of God.

The Beatific Vision.—From now onwards he strives ever towards this culminating peak of spiritual experience, the consciousness that he stands in the actual presence of God. The entrance to the quest of reality may vary but the exit

is ever the same ; “ From the foot of the mountain,” says a Buddhist poem, “ many are the paths ascending in shadow, but from the cloudless summit all who climb behold the self-same moon.” And in these sublime and solitary heights of consciousness the mystic has at last his exceeding great reward ; for in the end he finds, or believes he finds, something that transcends human knowledge and surpasses mortal desire—a presence whom even to approach is bliss, a revelation at whose coming “ the peace that we have ever sought, but that has ever fled from us on the path of the desires, comes of its own accord and it is well with us.” This is for those that have pursued and found it, the peace which the world cannot give ; the peace of God that passes understanding is revealed as the ultimate harmony and unity of the spirit in which this little sectional world of sense and strife exists.

Few, even of the mystics, have attained this supreme experience ; all are agreed as to the means by which alone it can be reached. The final stage in the long process of ascent or aspiration has been described by Plotinus, in a passage imitated by St. Augustine : “ If to any the tumult of the flesh were hushed ; hushed the images of earth, and waters, and air, hushed also the poles of heaven ; yea, the very soul be hushed to herself, and by not thinking of self surmount self ; hushed all dreams and imaginary revelations, every tongue and every sign, and whatsoever exists only in transition ”—then, when the whole external and phenomenal world has momentarily vanished from finite consciousness, and it is as though this noisy wheel of time had ceased to spin, then, and only then, can man obtain a glimpse of the infinite and the eternal.

The experience is confessedly indescribable ; “ Those who know,” says the Chinese mystic Lao-tse, “ tell it not ; those who tell it, do not know.” Perhaps the simplest and clearest account is that of St. Augustine. “ My mind,” he says, “ withdrew its thoughts from experience, extracting itself from the contradictory throng of sensuous images, that it might find out what that light was wherein it was bathed.

And thus, with the flash of one hurried gaze, it attained the vision of That Which Is."

Similarly St. Teresa saw many saints, apostles, and martyrs in her early visions, but at the summit of her experience there were neither apostles nor martyrs, saints nor devils. In her supreme moment the Trinity itself became unity, and she "saw God in a point."¹

St. Bernard makes an even loftier claim. "To lose thyself in some sort, to have no consciousness at all, to be emptied of thyself and almost annihilated—such is heavenly conversation. So to be affected is to become God." This is to assert not merely communion but actual union with God.

In this triumphant and ecstatic consummation and fulfilment which is claimed for the mystical purpose then, the distinction between subject and object must be lost, the human mind raised to another dimension, this temporal and transitory personality become momentarily conscious of the eternal, and the finite be absorbed in the infinite.

An experience so stupendous leaves the recipient conscious of a bliss beyond all knowledge. "If it is not for those," says a lovely passage in Plotinus, "to speak of the beautiful things of the world who have never seen them, never felt them beautiful; much more must men be silent who have not yet known the beauty of the inner vision, more exquisite than starlight, moonlight, or the summer dawn. This vision comes to those who see with the soul's light; and when at last they see, then awe will fall upon them, and deep wonderment and yearning—for the unseen beauty is divine, and wakens longing greater a hundredfold than can be felt for beauty visible and mortal."²

¹ The Blessed Suso seems to confirm this ever-riding unity of God. In the highest state of mystical consciousness, he says, the soul takes no notice of the persons in the Trinity.

² Cf. the same writer: "Nor may those tell of the splendour of virtue who have never known the face of Justice and of Wisdom, beautiful beyond the beauty of evening and of dawn."

Cf. too, Sir Joshua Reynolds (who was certainly no mystic): "The beauty of which we are in quest subsists only in the mind; the sight never beheld it, nor has the hand expressed it."

The Quest of God.—The complete mystic, then, is dominated by one great and overpowering idea—the personal discovery of God ; and in this he is like those who take ship from a known to an unknown country.

By the very condition of his case the discoverer and pioneer of the unknown must cut himself off from his kind, and brave the trials and perils of another element. It is certain that he will have many strange adventures and misadventures by the way. In the end he may find what he seeks. Or he may, like Columbus, reach another territory altogether, and mistake it for the object of his quest.

The voyage from the phenomenal to the real may be tedious and dangerous, its end uncertain and obscure. But for those who make it boldly, and sail steadfastly through the storms and darkness of the first watches, there comes a time by night at sea when the moon sinks downwards towards the West. The sun is not yet risen, but the golden promise of its coming is already stronger than the full splendour of the moon ; for the one is light itself, the other but its shadow and reflection.

So to the solitary mystic does the spirit subdue the flesh, and the eternal light of his desire outshine the silver radiance of this present life. The quest for him is ended.

Sincerity of the Mystic.—The great mystic is unquestionably sincere. When he declares that he has conversed with angels, been tempted in person by Satan, and seen God face to face ; even when he assures us that he has known the supreme but inexplicable and incommunicable joy of communion and union with the Almighty, there can be no doubt of the honesty of his report. This inner sanctuary of the mind is for him no palace of make-believe, but a spiritual holy of holies. The stamp of truth is in his words.¹ He believes with the simple faith and utter assurance of those whose experience leaves no shadow of doubt.² Others have touched the fringe of spiritual things. But for him there

¹ Cf., Eckhart : " Truth is a most noble thing. If God were to backslide from truth I would fain cling to truth."

² Eckhart again : " To the unenlightened this is matter for belief, but the illumined know."

is no question that he has seen the beginning and the end.

A process which makes claims so high, and produces results so noteworthy demands and deserves attentive study.

It is a curious and baffling paradox that it is precisely the experiences which bring the greatest certainty of conviction to the religious which are least susceptible of proof. Many of the elements of religious experience can be disproved, at least given a different and more probable explanation from that which the percipient attaches to his visions and auditions; but his supreme experience, which he interprets as communion and union with the Most High God, cannot be directly demonstrated by the percipient as truth. We have therefore to examine it by other methods.

Conditions of Mystical Development.—Three successive stages mark this quest of the spiritual world. 1. The preliminary perception through the senses, which has already been described. 2. A period of withdrawal and complete detachment, in which alone the higher altitudes of the mystic way can be attained. And 3, a steadfast concentration of the mind, in order to clarify, and purge and elevate the mystical personality, and conduct it to the goal of its desire. Only when these things have been achieved can the soul return after long travail from its solitary pilgrimage; then and then only, it may sometimes turn from contemplation to action, and express itself in language as sublime as the experience it recounts.

It has been said already that the mystic is the genius of religion, and it will be seen that these three stages of development run parallel to the course of genius in other spheres.¹ All genius rests fundamentally on perception, or rather on super-normal perception; it must feel or see more than the ordinary man, or genius will not exist at all. But all genius demands the appropriate environment in which alone it can come to fruition. And all genius must be concentrated and disciplined to its task, or it will lack complete fulfilment and effective expression.

¹ Chapter 2, Section 5.

Now mysticism, like other forms of genius, can be analysed in terms of perception, will and expression. In the faculty of expression, indeed, the mystic is often lacking; we shall discuss later both the deficiency and its probable cause. In perception he must be super-normal, or he will not be a true mystic; but unless he can discipline and concentrate the mind by excluding rival or counter influences he will not develop those perceptions and their attendant consciousness to their full potentiality. In his case the concentration and discipline which develops the mystical personality is obtained, and can only be obtained, in solitude.

The Demand for Solitude.—All the mystics are agreed upon this imperative need for isolation; every great mystic at the crisis of his life, when faced by this decision, has sought solitude as other men seek society. There is a tradition that Zoroaster spent thirty years in profound meditation. Buddha renounced wife, child, and home to consider the sublime mysteries. Nanak, the founder of the Sikhs, fled his kind to find the light.

Christ, who loved the casual chances of the street and the human hum of crowds, withdrew for a space into the wilderness. St. Paul, the active organiser of men and movements, sought seclusion for three years in the desert at his conversion. Loyola, the leader of men, shut himself away from men. St. Catherine of Siena "made herself in her mind, by inspiration of the Holy Spirit, a secret cell, out of which she resolved never to go by reason of any external occupation." A typical Mohammedan mystic had "a cell in which I sat, and sitting there was enamoured of passing away from the world."¹

To St. Teresa, as to many others, the impulse towards solitude seemed to come as a direct command from God. "One day, having prayed for some time, and implored our Lord to help me to please Him in all things, I began the hymn. And as I was saying it, I fell into a trance, so suddenly that I was, as it were, carried out of myself. I could have no doubt of it, for it was most plain. This was

¹ Nicholson, *Studies in Islamic Mysticism*.

the first time our Lord bestowed on me the grace of ecstasy. I heard these words, ' I will not have thee converse with men, but with angels ' . . . These words have been fulfilled. For I have never been able to form friendships with, nor have any comfort in, nor any particular love for any person whatsoever, except those who I believe love God and strive to serve Him. It is nothing to me if they are my kindred or my friends ; if I do not know them to be lovers of God or persons given to prayer, it is to me a painful cross to converse with anyone."¹

Nowhere has this overwhelming need for solitude been shown more clearly, or more pathetically, than in the exceptional case of John Bunyan, a man of strong natural affection to whom mystical experience came only after marriage. Many men have left their parents and the world for religion ; few indeed have put their children on one side. But when the call came to Bunyan it was irresistible ; but the parting from wife and children was " as the parting of my flesh from my bones, especially my poor blind child, who lay nearer to my heart than all I had besides."

All the authorities on mysticism are agreed upon this necessity for utter detachment and isolation. " The soul whose affections are set on the beauty of any created thing whatever shows before God nothing but deformity," says St. John of the Cross ; and again, " All the love we bestow on creatures is in the eyes of God mere darkness, and while we are involved therein, the soul is incapable of being enlightened and possessed by the pure and simple light of God." ²

There is to most ordinary men something frankly repellant and unnatural in this attitude, which is often combined with

¹ The direct command from God, of which religious history is full, is of course not confined to religious history. John Brown, the American anti-slavery leader, believed that he received direct commands from the Almighty ; he justified murder and was hanged.

These auditory impulses, which come from the deepest strata of the unconscious self that is struggling to assert itself, are naturally interpreted as direct commands from God.

² *The Ascent of Mount Carmel*. And cf. Philo ; " The soul must shun the whirlpool of life, and not even touch it with the tip of the finger."

extravagant asceticism.¹ The spiritual humility which the mystic professes may seem to be, and may in fact be, the unconscious mask of a subtle form of arrogance and pride ;² at any rate during the formative years of spiritual adolescence the solitary contemplative is covetous and acquisitive rather than sympathetic, and it is not of the least consequence in this respect that he seeks to acquire what other men have no particular desire to obtain—the spirit of God. Those who cut themselves off from this pleasant world of human friendship find affections and interests atrophy, and they may become so absorbed in their quest (or in themselves) that they no longer feel the loss, or count the very loss itself as gain.³

But because he becomes inhuman the mystic is not necessarily nearer the divine, and some of the contemplatives have themselves recognised the danger of this attitude.

¹ The extravagances of asceticism are proverbial. St. Catherine of Siena reduced her food and sleep to the minimum. Of St. Peter of Alcantara it is recorded that "for forty years he slept but an hour and a half out of every twenty-four; and the most laborious penance he underwent when he began was this of overcoming sleep. For that purpose he was always either kneeling or standing. When he slept he sat down, his head resting against a piece of wood driven into the wall. Lie down he could not if he wished; for his cell, as everyone knows, was only four feet and a half in length."

Pietro, the hermit of Monte Murrone, when elected Pope was discovered in a rude hut among the rocks, with a ragged shirt, unkempt beard, a face emaciated with fasting, and eyes worn with tears. When the emissaries announced their mission, he knelt, thinking it was a vision. In Tibet (Waddell, *Lhasa*) hermits are entombed underground in silence and absolute darkness for years, in cells little larger than their bodies, neither speaking nor spoken to. This is called the Cave of Happy Musings on Misery.

But there is no need to multiply instances. St. Simeon Stylites and the Indian Fakirs have become proverbial figures of speech. Much of this, however, is not mysticism at all, but a type of solitary masochism.

² The unreal austerities of some of the contemplatives were vigorously condemned by St. Bernard: "Again, with our bellies full of beans, and our minds of pride, we condemn those who are full of meat, as if it were not better to eat a little fat on occasion than to be gorged even to belching on our windy vegetables."

Zoroaster seems to have condemned fasting as injurious, as St. Paul advised a little wine.

³ Its extreme form is exhibited in the account of the Blessed Angela of Foligno, who congratulated herself on the death of mother, husband, and children, these being "great obstacles in the way of God."

Jami, the Persian mystic, is sweeter and more natural:

"Drink deep of earthly love, so that thy lip
May learn the wine of holier love to sip."

Eckhart protests that it is better to feed the hungry than to see visions as St. Paul; and Ruysbroek remarks that, "Were you rapt in ecstasy like St. Peter and heard that some poor person was in want of a hot drink or other assistance, I should advise you to awake for a moment from your ecstasy to go to prepare the food."¹

Yet the impulse to seek solitude is irresistible. What precisely is this influence which compels detachment and seclusion at the cost of every social tie and the sacrifice of every natural emotion and human sympathy?

The reasons, I think, are clear. The mystic is at once the genius of religion and the leader in new places. Now all leadership in itself involves solitude and separation from the mass; and all genius resents interruption and intrusion in its work, because these irrelevances distract the attention which must be concentrated on the one sole object of achievement and fulfilment if success is to be attained.

But the mystic seeks a higher and even more difficult end than other forms of genius, and therefore he is still more insistent on isolation than other men of genius. Unknown to others, and least of all suspected by himself, the mystic is the supreme individualist; it is only by surpassing the ordinary limits of personality that he can attain the greater impersonal end that he desires. For that reason he will sacrifice the whole world to fulfil himself, since only by sacrificing the whole world can he fulfil himself; he ignores his fellow-men, but in fact he ignores them because he is not really interested in personal so much as impersonal things—it is not human society but the very secret and inner meaning of the universe he seeks.

It is true that when he has found, or thinks he has found, the truth, this attitude of rigid discipline relaxes; and he may return, changed and quickened and strengthened by the inspiration of solitude, to the company he has left. Thus Nanak the Sikh confesses, "I wandered through the whole world calling out for my beloved, yet my thirst

¹ And cf. Tauler: "Looks of love are more acceptable to God than lofty contemplation."

departed not; but on meeting the true Guru my thirst departed, and I found my beloved in my own house on my return. Why go searching God in the forest? I have found him at home." This too is true; but had Nanak not sought and first found the God of his desire in the forest he would never have found him at home. It was isolation which taught him that a universal God is as accessible in society as in solitude.¹

But there is another and perhaps deeper psychological impulse towards this self-sought isolation. Most men work on a minimum basis of consciousness, and generate no more than is required for daily use.² The contemplative, on the contrary, tends always to generate more consciousness than he requires; and precisely because he reduces the business of life to a minimum, and receives more in contemplation than he expends in action, he achieves a maximum of consciousness that clarifies and enlarges personality, produces an illumination of his soul, and eventually overflows in ecstasy and rapture.

It is obvious that perception must always precede absorption, as absorption precedes expression; we cannot give out unless we have first taken in. But perception, response, growth and absorption are at bottom all the same thing, or successive stages of the same thing—an increment of energy, which is contemplation, as distinct from the expression of energy, which is action. Contemplation and action are the in and out, the flow and ebb, the take and give, the obverse and reverse of consciousness. Now the essential principle of consciousness is union between subject and object; what the mystic seeks is the perception of God, but that in itself implies an enlargement of the personal subject, and therefore an increase of consciousness by the absorption of at least some part of its object.*

¹ Cf. Eckhart: "God is nearer to me than I am to myself. He is just as near to wood and stone, but they do not know it."

It is because men so seldom know it that the mystic seeks isolation. Newman in his *Apologia* expresses astonishment that so many men ignore the existence of God, which was to him as clear as his face in a mirror. But the explanation is simpler than he thought. Many men have very little religious perception.

² Chapter 5.

• Isolation and solitude manifestly favour individual growth and the absorption and accumulation of energy, whereas social life tends to dissipate energy. Living in a society entails action and expression, solitude enforces contemplation; it involves less wear and tear than active life, it confers freedom from interruptions irrelevant to the main purpose, and consequently it is likely to increase potential psychic power. In solitude, then, the mystic grows to his full stature, and in contemplation he finds content and the fulfilment of his quest.

There is, moreover, a real physical necessity for this isolation of the mystic during the formative years of his psychic life. Probably the general key to the mystical consciousness is that he has an excess of super-normal perceptions which he is unable to harmonise or rationalise into a consistent whole without pondering and interpreting their meaning; and the doubts and difficulties attendant on this process are alone sufficient to restrain him from expression and action while the brooding process of mental digestion and spiritual growth continues. But there is a further reason. In social life we constantly radiate out and receive personal stimuli from our associates; but the solitary mystic no longer receives personal stimulus from man, but impersonal stimulus from nature. He seeks a different environment because he seeks a different development.

Solitude is therefore the condition of his growth, and isolation a universal characteristic of the higher mystic life in its adolescent stages. Some compelling influence warns the contemplative that he must flee this multitudinous world if he is to attain the other world of his ideal. From the moment he seeks the universal he must shun the individual and the particular; for him the quest of reality, in the sublime definition of Plotinus, is "the flight of the Alone to the Alone." He must lose himself to find himself; and eschew the desire of human things if his own desire, which is to find God, is to be fulfilled.

For that reason he embraces poverty and chastity, which are the negation of material and corporal desire; "The

journey or ascent," says St. John of the Cross, "must be a perpetual struggle with our desires to make them cease, and the more earnest we are the sooner shall we reach the summit."

In fact, however, we do not make our desires cease, nor is it possible to do so while we live ; we merely transmute them into other desires. And in this matter the mystic does not so much renounce desire as make his choice, like other men, between incompatibles. His material poverty is thus an indication that he is avaricious of spiritual wealth, his physical chastity a symbol that his purpose is spiritual marriage, the communion and union with the divine.

The mystic, like all other men, must live at a profit—that is to say, he must receive more than he gives if he is to go on living at all. It is not indeed his ratio of profit so much as his standard of values that makes him different from other men ; in the emphatic words of Christ, he seeks treasure in heaven, not treasure on earth.

The Unification of Will.—Clearly, then, it is altogether a misnomer to speak of this still unsatisfied desire for the spiritual world as renunciation or sacrifice of the will. It is indeed the exact opposite. It is less a sacrifice than a rigid discipline and control which strengthens and elevates the will to something far above its ordinary level.

It is a discarding of secondary and unimportant things in order that the real purpose of the individual may be attained. Now those things are secondary and unimportant which we think secondary and unimportant. The standard of personal values is internal.¹

The mystic, in fact, like every other man with a single dominant purpose in life, canalises the will, and forces it to flow in one direction. The current gains in strength and depth as it is narrowed to one channel, but the fact remains that it is narrowed.

But it is not only the mystic who is thus compelled to

¹ Cf., the famous case of Pascal, who abandoned the study of mathematics for mysticism. This emergence of dominant purpose was interpreted by him as the will of God.

discipline the will. The athlete, the soldier, the statesman, the philosopher, and indeed every man whose purpose in life is clear, must sacrifice the things he ranks as secondary to attain the thing he ranks as primary. But what he sacrifices is not the will, but the things which appeal to the common will, and which must be rooted out of the individual will because they operate as a drag and a handicap on its special purpose. In the last analysis, then, self-denial is a concentration of the will on that which is regarded as essential to the completion of personality. It is ultimately not so much a sacrifice as a form of purposive selection.¹

The solitude of the mystic, therefore, is less a cause than a consequence of his potential personality, which is compelled to seek the environment in which alone it can fructify. In one sense it is self-denial, but at bottom it is less self-denial than self-fulfilment. The least of egoists is also the greatest.²

The Fulfilment of the Self.—The avowed purpose of the mystic, then, is communion with God, but that purpose

¹ The crude idea of sacrifice probably derives from the primitive belief in a malignant god, with the consequent necessity of propitiation. When, however, the theory of a beneficent God supplanted the earlier belief, the compensating assumption of the fall of man was introduced, and the theory of sacrifice, although retained, was inevitably modified and spiritualised. It was possibly also influenced by man's sense of his own limitations giving him a feeling of unworthiness in contrast with the universe.

The later idea of personal sacrifice is based on the rejection of the normal level of immediate gratification in favour of higher ultimate attainment; we economise expenditure of energy in one direction in order to conserve it for another, and present self-denial is therefore a condition of future fulfilment. The extraordinary potency of the idea is manifestly due to its permanent value and truth.

² Curiously, Schopenhauer has fallen into the common error. "A man who after many bitter struggles with his own nature has finally conquered the will continues to exist only as a pure knowing being. Nothing can trouble him more, nothing can move him. The Ideal will have suppressed the Real." But such a man, if he exists at all—and I am rather sceptical of the "pure knowing being"—has not conquered the will; he has unified it and heightened its effective power by concentrating it on one particular aim.

And indeed it might be said that every sacrifice is ultimately a fulfilment of our fundamental purpose; from the ordinary man who sacrifices his appetites for his children, or the soldier who sacrifices himself for his country, to the martyr who dies for his faith. Each sacrifices himself for the continuity of the family, the State, or the Church; but none of the three will do so unless he holds that to be the ultimate purpose of life.

In death, therefore, he fulfils himself. Perhaps we all do.

involves as a prior condition the concentration and unification of personality, and the fulfilling of himself.

Personality is always fractional and incomplete, and its inmost urge towards completion and continuity is attained by most through the avenue of sex. But the mystic is denied this fulfilment, this physical immortality, by his renunciation of sex. Yet he too must fulfil himself, and his passion for spiritual continuity is assuredly not less strong than that of others for the physical continuity achieved in parenthood.

He seeks a different path to a different end. But the need for completion of personality, for growth and unification within himself, which is essential to his quest, may be for him a task of extreme difficulty.

The super-normal individuality of the saint, already shown by visions and auditions, quite clearly indicates a manifold, and indeed, multiple personality, whose internal stress and conflict demand isolation while the psychic battle is fought in which the will is unified. The mystic is aware of a clamour of voices that cry within him ; and these submerged or fractional personalities demand action, expression and fruition in the main consciousness. Unless they can assert themselves and grow, and eventually become enpsychicated in the mature texture of the individual, the potential character will remain truncated and incomplete, and fail in its purpose and ultimate achievement.

The longing for solitude and detachment, then, is partly the demand of the troubled adolescent soul and distraught personality for freedom to settle this internal conflict.¹ It must seek a respite from the distractions and interruptions of a noisy world while it is the field of civil war within ; or the process of growth and unification will be delayed, and perhaps never completed.

The greater the forces at issue, the greater probably will be the struggle for unification and peace, and the greater

¹ Cf. Keats : " The imagination of a boy is healthy, the mature imagination of the man is healthy. But there is a space of life between in which the soul is in a ferment, the character undecided, the ambition thick-sighted." The poet and the mystic are seldom far apart.

the personality that eventually emerges. But it will only emerge when certainty of conviction is attained, and that can only be attained when unification of the will is complete. The house divided against itself cannot stand.

It is this triumphant unification of the whole personality, this certainty and assurance that spring up within the great religious positive and give him peace, which endows the mystic with some at least of his apparently superhuman strength and influence when he returns, as he sometimes does, to the world of ordinary men and ordinary conflicting motives. He who no longer doubts himself will obtain power over others without seeking it ; and in this sense at least his certainty is God-like, for God can have no doubts.

Concentration of the Mind.—In silence, then, and solitude the mystic concentrates his mind on the quest which is to unify his personality and to discover God. Now when the mind concentrates on one idea, be that idea great or small, it is a universal rule that other interests shrink and atrophy. We resign much to gain the one thing needful ; the river of consciousness narrows as it deepens.¹

The mind is naturally diffuse, and its attention scattered over a variety of interests ; it is a multitudinous world that attracts or distracts our ordinary consciousness. Nothing imposes so great a strain as continual concentration on one issue, but it is a general experience that the concentration of mind necessary to intellectual labour may be assisted by artificial means.

Kant, for instance, who was no mystic, "found that he could better engage on philosophical thought while gazing steadily at a neighbouring church steeple." It was not that

¹ Cf., the parallel case of Darwin. "Up to the age of thirty, or beyond it, poetry of many kinds gave me great pleasure ; and even as a school-boy I took intense delight in Shakespeare. Formerly pictures gave me considerable, and music very great delight. But for many years I cannot endure to read a line of poetry ; I have tried lately to read Shakespeare—it nauseated me. I have also almost lost my taste for music and pictures. The loss of these tastes may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the emotional part of our nature."

the steeple obtruded itself in his scheme of thought, but by fixing his gaze it narrowed his line of vision, and helped to exclude disturbing influences.

This concentration of attention on one object is no doubt in the first instance often adopted to prevent distraction by other objects. The actual choice of object is of no great importance—in Egypt and Libya the contemplative will gaze steadily at a glass of water, a basin of oil, or even a blot of ink. Anything suffices, so long as it serves to concentrate the mind, but preferably it should be something that reflects light.

But this steady concentration and exclusion of distractions may presently produce a definite change in the character of consciousness. A dish of burnished pewter is said to have been so effective in the case of Jacob Boehme that it produced an ecstasy. A stream of running water "opened the eyes of the mind of Loyola with such clearness that all things were made new." In these cases the actual object chosen probably mattered little; the ecstasy was not the result of the pewter or the stream, but of the concentration of mind.

But we are inclined to fix attention on things that interest and attract us, and these may in time fill the mind to the exclusion of everything else. The Western monk who gazes steadfastly at the crucifix has his counterpart in the Oriental who contemplates the figure of the Buddha. In these cases, as we saw in the accounts of visions of the saints, the mind tends to vivify its own objective, and the significant symbol is thought to nod, smile, or even speak to its votary.

What was at first a mental help may therefore in the end become a limitation and a hindrance of the soul. "A man never gets to the underlying truth," says Eckhart profoundly, "if he stops at the enjoyment of its symbol." The symbol, in fact, is merely a signpost on the road, but many mistake it for the terminus.

The repetition of a word—sometimes the contemplative's own name—is another classic method of concentration. It

affects the auditive instead of the visual centres of the brain, and therefore produces somewhat different results.¹

This method was practised by Tennyson, whose shortness of sight made him auditive rather than visualist, and who was a mystic at heart. He has left a most illuminating description of his condition in this state of consciousness : " All at once, as it were out of the intensity of the consciousness of individuality, individuality itself seemed to dissolve and fade away into boundless being ; and this not a confused state, but the clearest, the surest of the surest, utterly beyond words—where death was an almost laughable impossibility—the loss of personality (if so it were) seeming no extinction but the only true life." ²

This account obviously indicates an element of self-hypnosis. But it suggests too that the mystic may attain by this means the full limits of his personality, and become sharply conscious of those limits, like a man knocking impatiently against the walls of a closed room. And indeed it does more. For this very fulness and overplus of individual consciousness suggests also that this method evokes the whole latent potentiality of the susceptible individual, which responds to this direct call on its own egoism, and bursts the banks in which the normal stream of consciousness has hitherto been confined.

These finite limits—the creation of past time and present circumstance—have not been fixed by an impassable barrier, or progressive evolution could never have occurred ; and once the stream rises to that higher level and overflows, the radius of normal consciousness is suddenly enlarged. It is aware no longer of the thing, but of the medium in which the thing exists ; and it now makes the profound discovery that the medium in which the thing exists is akin to its own consciousness—the material exists, and can only exist, in a spiritual world. Existence is discovered in a new

¹ The mechanical repetition of prayer and recitation of spells possibly derive from this method. Both manifestly tend to concentrate the will in one particular direction.

² It should be remembered that Tennyson was passionately attached to the doctrine of personal immortality.

dimension, and the percipient becomes actively conscious of the surrounding infinite.¹

The various reaches, and alternate deeps and shallows, of this strange solitary stream of consciousness, have all been charted from its source in perception or prayer till it finally both finds and loses itself in the ocean of achieved desire. It is now necessary to discuss the successive stages of this progress of the soul.²

Reverie, Trance, Ecstasy and Rapture.—Reverie, the initial stage in mystical experience, is familiar to us all. But reverie is passive. The mind is not concentrated on any objective, but roams loosely over the whole field of accustomed thought. Active—that is to say, consciously selective—perception of the external world is reduced to a minimum, but passive perception may increase, and the senses become more receptive as their ordinary tension relaxes. We no longer seek experience, but neither do we reject it if it comes.

Nor do we sort out and arrange experience as an intel-

¹ Cf. Caird, *Philosophy of Religion*: "It is not a finite but an infinite life which the spirit lives. Every pulsebeat of its existence is the expression and realisation of the life of God." And William James: "The further limits of our being plunge, it seems to me, into an altogether other dimension of existence from the sensible and mere understandable world." And Reynolds, "To a mind properly constituted, whatever is bounded is little." And Beethoven, "We finite creatures with an infinite mind." In other words, we are rooted in eternity, but only some are conscious of the fact, and then only in supreme moments.

² Richard of St. Victor catalogues the progress of the soul through the following series: 1. Contemplation of visible and tangible objects. 2. Study of art and nature. 3. Study of character. 4. Study of souls and spirits. 5. Entrance to mystical region. 6. Ecstasy.

The progress from the material to the spiritual, the personal to the impersonal, is here quite clearly indicated. The route may vary a little according to the traveller, but the five successive stages of the Persian mystics are essentially similar: 1. Man. 2. The visible world. 3. The world of similitudes. 4. The relatively invisible. 5. The absolutely invisible.

Shabistari reduces this more simply to two. 1. Dying to self. 2. Uniting with the truth. This is the same as the Christian conversion, or being "born again."

The 8-fold path of Buddhism is through Right-belief, right aims, speech, action, living, endeavour, rightmindedness, right meditation. This is variously styled the graded path, the fruitful path, the great ultimate perfection. But whatever system or series is adopted, it is always a map of the awakening of the soul to God.

lectual process in reverie ; we let it sort itself out. In reverie the mechanism of the mind revolves on itself. It follows naturally that emotion and thought run along the customary lines set by the mental habits of the individual ; the ideas that appeal most to him hold the lead. The religious man's reverie is of saints and angels. But the sportsman's reverie is of dogs and the chase.

Reverie in itself tends to unify and clarify the ideas on which the mind dwells ; it is a brooding state in which mental energy accumulates in one habitual direction, and it is therefore likely to result in emotional decisions in that particular direction. But when once that decision is definitely taken ; when consciousness is no longer scattered and diffused by passing interest in every external phenomenon ; when the mind has chosen its own objective to the exclusion of others, resigned everything to its pursuit, and becomes disciplined and continuously concentrated by meditation and prayer on that single purpose ; then the individual develops, as it were, vertically and not horizontally, and deepens rather than spreads his activities.

Most minds of normal calibre stop short at reverie, and do not go on to the further stages of the mystic way. But for those that do, a higher level of consciousness is attained, and an entirely new mental state may in time supervene. Reverie now becomes trance, ecstasy, and rapture—clarified and unified psychic states that induce temporary oblivion of the external world and partial or complete supersession of physical consciousness ; with occasionally definite alterations in the physical constitution directly traceable to the extreme mental excitation of the subject in the trance.¹

There is a mass of honest, but by no means always satisfactory or consistent testimony as to these conditions.

Ecstasy, according to the definition of St. Augustine,

¹ The evidence for the *stigmata* appears in many cases to be unchallengeable. Nor do I see any reason to deny its possibility ; it belongs to the same order of phenomena as maternal impressions. These also have been ridiculed, and no doubt many supposed cases are baseless. But a definite instance is recorded by A. R. Wallace in his correspondence.

It is significant that with the single (and original) exception of St. Francis, all the authenticated cases of *stigmata* have been among women.

is "a state midway between sleep and death. The soul is rapt so as to be withdrawn from the bodily senses more than in sleep, but less than in death." But there are manifestly many differences of personal experience in this condition.

1. Its elementary form is illustrated in the account of illumination given by Hildegard of Germany. "From my infancy up to the present time," she writes, "I being now more than seventy years of age, I have always seen this light in my spirit, and not with external eyes, nor with any thought of my heart nor with help from the senses. But my outward eyes remain open and the other corporeal senses retain their activity. The light which I see is not located, but yet is more brilliant than the sun, nor can I examine its height, length, or breadth, and I name it 'cloud of the living light.' And as sun, moon, and stars are reflected in water, so the writings, sayings, virtues and works of men shine in it before me. And whatever I thus see in vision the memory thereof remains long with me. Likewise I see, hear and understand almost in a moment and I set down what I thus learn. . . . But sometimes I behold within this light another light which I name 'the Living Light itself.' And when I look upon it every sadness and pain vanishes from my memory, so that I am again as a simple maid and not as an old woman." ¹

In the foregoing case, the bodily senses seem not to be affected. On the other hand, St. Teresa—a more potent personality than Hildegard—states that in ecstasy all the senses vanish, except a little hearing. In rapture, according to the same authority, the power of movement is lost, but "there remains the power of seeing and hearing; but it is as if things seen and heard were at a great distance far away."

This sudden shifting of perspective, as though things were seen remotely through the wrong end of a telescope,

¹ A careful analysis of the visions of Hildegard is in *Singer's Studies in the History and Method of Science*. Her revelations contain nothing that was not part of the available religious doctrine or philosophical speculation of the time.

is not very uncommon in ordinary consciousness, when it produces an effect as if the ego had retreated and stepped backward and away from itself. This is certainly not rapture in the technical sense of the term, but it is probably the preliminary and passive condition in which trance begins, and which may eventually lead to ecstasy and rapture.

With St. Catherine of Siena, however, all the senses vanished in ecstasy, even touch ; and this appears to have been true at times of St. Teresa, who is said (probably with some exaggeration) to have lain as a child four days as if dead, so that her grave was dug.

2. In St. Paul's rapture, on the other hand, not only did all the senses vanish, but it seemed to him as though he were caught up into heaven, and the soul lifted out of the body

This feeling of exaltation, as of walking on air, and even of flight and ascension, is referred to in many similar cases. The condition is most clearly described by the philosopher Jerome Carden of Pavia (1501-76) : " When I go into a trance I have a sensation near my heart as though my soul were parting from my body ; and this separation takes place in the whole of my body, above my head and brain. After that I have no sensation, only the feeling of being out of my body." And this statement is in turn reinforced by St. Catherine's description of her sensation as being like a cork that is held forcibly under water, and restrained from rising to its natural level.

These descriptions evidently indicate an excess and overplus of consciousness within the organism, a greater psychic content than the individual mind can accommodate or permanently retain ; and it suggests further that this psychic excess seeks to escape, and perhaps succeeds in escaping, during the ensuing ecstasy. And this tentative interpretation seems to be supported by other personal accounts of the condition.

During ecstasy, says Jami the Persian mystic, is " neither consciousness of self, nor even consciousness of such absence

of consciousness—nothing save the one God alone.” This is a little confused and paradoxical, but Plotinus is clear and emphatic: “The soul is no more conscious of the body than the mind, but knows that she has what she desired, that she is where no deception can come, and that she would not exchange her bliss for all the heaven of heavens.” The sequel is exhaustion: “I feel myself,” says Amiel, “stripped and empty, like a convalescent who remembers nothing.”

3. In many cases the ecstasy comes, at least seems to come, unbidden. “In contemplation we can do nothing,” says St. Teresa, “it is altogether the work of God, above our nature”; and more emphatically, “all my gain has come through the revelations and raptures, in which I am nothing myself, and do no more to effect than the canvas does for the picture painted on it.”

And Madam Guyon is equally definite: “I tried to obtain by effort that which I could only obtain by ceasing all effort.”

These statements, which could be corroborated by many parallel accounts, make the general sequence of these obscure mental processes less difficult to follow. Admittedly the saints, who are not always psychologists, do not everywhere distinguish between ecstasy and rapture; nor is it perhaps possible to do so. Admittedly, too, there are manifold differences of personal content and capacity; but certain general conclusions seem possible.

A.—In some cases there is direct evidence of nervous disease. In others the evidence is only indirect, but the assumption that it exists is highly probable.

B.—In every case, at least all the cases I have investigated, the nervous system of the percipient is obviously abnormal. But this is by no means necessarily evidence of disease. Often it points to extreme, or excessive susceptibility; certain nerves are peculiarly sensitive, or the whole nervous system may be hyper-sensitive, and keyed up beyond the normal level, as in other types of genius.

The slightest touch, smell, sight, or sound—which in the ordinary individual would excite hardly any reaction—

is sufficient in these cases to produce a quite extraordinary result which is reflected in the consciousness. The momentary touch of a single hair, a mere sigh of the drowsy summer air, a transitory glimpse of star-lit sky or shimmering sea, will instantly alter the register of the super-sensitive mind. Perception is involuntary, reaction practically instantaneous; but the experience is found to be a source of pleasure, and when the reaction is exhausted for the time being, the return to the ordinary state of consciousness is regretted, and a repetition is desired.

This extreme delicacy of perception appears to be quite common in childhood and adolescence, but is apt to diminish in later life. In early years it is involuntary; later it may still be so, but it can sometimes be induced artificially by an effort of the will.

We do not know the limits of these perceptions, because they vary with the individual, and the individual's capacity for absorbing external stimulus. But when they are extraordinarily great, they would easily overwhelm normal consciousness (which is the result of normal perception) and produce trance.

C.—The ecstasies recorded of St. Catherine and St. Teresa in their childhood were clearly involuntary, and due to this extraordinary sensitiveness and delicacy of perception. Some touch or sight or sound provoked these amazing reactions, but the cause has been forgotten—if it was ever known—while the effect is remembered.

In both cases, this extreme sensitiveness of the whole nervous system appears to have remained constant, or nearly constant through life. In others, it either vanishes with adolescence, or can only be attained by effort or artificial means. In the latter instances, such as Madam Guyon, the nervous temperament seems on the whole less susceptible, and the mystical achievement is consequently less.

In these secondary cases on a lower level it is admittedly only when effort ceases, and desire seems momentarily to fail, that ecstasy occurs. But where there has been no effort and concentration of the will there is no ecstasy,

and it may therefore be presumed that effort only ceases when there is no longer need for it. Desire has already accomplished its end, and ceases at the moment of fulfilment. When the channel is cut deep enough the river flows naturally to that level; but the channel must first be cut before the flow can begin.¹

Trance and its sequels in the higher psychological sense may thus be regarded as primarily the consequence of a variation and intensification of normal perception in one particular direction, and thus as an accumulation of energy in that particular direction; and secondly as the culminating moment of a long series of previous meditations and periods of contemplation. Each has a progressive and cumulative effect in deepening religious emotion and strengthening the will; until the mind, continuously concentrated on one idea, at last becomes entirely filled and, as it were, fused and unified and controlled by its obsession.²

The trance and its sequels seem then to mark a higher power of perception and therefore of reception, which in time overflows the normal energy-content of the individual. There are various types of ecstasy, but all ecstasy—even the physical ecstasy of marriage—has to do with an excess and expression of the normal energy-content of the individual. Ecstasy is consequently always a transcending of the normal individuality induced by extra-perception and a super-normal absorption of energy. In its earlier elementary stages it may be receptive, but in its later and decisive stages it necessarily becomes excessive and consequently expressive.

But these culminating moments of ecstasy and rapture also indicate that the idea which caused trance has increased

¹ There was a form of physical, possibly a primitive mental ecstasy, in the orgiastic ritual of some early religions. But this was excitement induced by the crowd and sexual stimulus.

Similar manifestations, although devoid as a rule (but not always) of sexual content, are seen at every successful religious revival. Cf. Wesley's *Journal*.

² This is not confined to the religious consciousness. Newton, who discovered the law of gravitation "by incessantly thinking about it," was notorious for his deep meditations and absent-mindedness, which almost reached a state of trance. There are many similar instances.

its area and control, until from time to time it may now entirely dominate the entranced individual. The single idea of the solitary has not to struggle, as with us others in the workaday world, with the distractions and irrelevancies of ordinary social intercourse ; isolation protects it from the competition of rival or counter influences, and in time it may gain practically complete possession of consciousness and sub-consciousness to the exclusion of almost everything else. The ordinary man possesses an idea, or several ideas. The solitary begins by possessing an idea, but in the end it possesses him.¹

When there is no longer room for other thoughts the effort of concentration is no longer required and naturally ceases ; the idea so long contemplated and absorbed has acquired absolute possession, it now comes of itself, and floods and overpowers the whole mental and physical personality.

Trance, ecstasy, and rapture, then, mark successive stages in increase of consciousness, the concentration of the whole mind on one idea, and the attempt to attain new fields of reality. They shade into or diverge from one another, and show differences of content and experience, according to the individual character of the percipient. But they possess one common characteristic which reveals their essential identity ; they effect an exaltation or illumination of the individual which results in a growth and enlargement of personality in one particular direction, and an increase of understanding in that direction.

Experiences of this kind are not uncommon in the records of mysticism, which is itself nothing but a study of extra-perception not always correctly interpreted. But the sudden clarity and illumination of mind which results from long concentration on a single theme is by no means peculiar to the mystic. On the contrary, it is experienced in greater

¹ Cf., Heine. " We do not have ideas—the idea has us, and enslaves us and scourges us and drives us into the arena to fight for it like gladiators, who combat whether they will or no."

It is, of course, not only the religious who become thus possessed. The morose and sulky man is also a contemplative—one who broods over a grievance until it fills his whole mind with sullen hate.

or less degree by every student who has painfully grappled with some stubborn problem and at long last attains, seemingly in a flash and with a sheer leap forward of the intellect, full mastery and comprehension. The victory is instantaneous, but if there had been no concentration and no mobilisation of the mind, and no battle of the will, there would have been no victory and no illumination.

D.—In its physiological aspect reverie generally entails some diminution of respiration, circulation, and other vital functions, as in sleep¹; but on its psychological side it causes an increase, or sometimes a sublimation of experience, and thus an enlargement, or at least an alteration of the energy-content and consciousness of the self. These appear to be universal characteristics of the process.

In reverie we no longer expend but receive energy, and trance is a deeper form of reverie. It is still an impression and a receiving-in of experience, but the mind is now so concentrated on one point that it receives stimulus only through one avenue, and the other senses are blocked and closed.

But when trance develops into ecstasy or rapture its character is definitely changed, and even reversed. The fact that the senses show an increasing inability to register the impressions they receive indicates that their susceptibility is exhausted by excess of stimulus, and temporarily paralysed.² The fact, too, that the body now seems to float on air, or the spirit to ascend to heaven, further suggests that the mind has become saturated and super-charged with an excess of psychic energy seeking to escape and free

¹ Cf., Wordsworth on ecstasy: "The breath of this corporeal frame, and even the motion of our human blood, almost suspended."

But this is not quite always the case. The pulse of Bernadette of Lourdes was found to be normal during ecstasy; and in some trances the pulse increases.

² This is also true of the hypnotic trance. And cf. A. R. Wallace, (*My Life*): "By mesmerism, "any sense can be temporarily suspended so that a light can be flashed on the eyes or a pistol fired behind the head without his showing the slightest sign of having seen or heard anything."

Curzon, a cool and detached observer, has an interesting account in *Tales of Travel* of a Mohammedan ecstasy (artificially induced) which proves the insensitivity of the participants completely.

itself from an overfull personality. Consciousness can now no longer, I think, be described as an impression, or receiving-in ; it is becoming rather an expression, or reaching-out. The personality of the recipient is full and more than full, and finally it overflows in ecstasy and rapture.

And this interpretation of the evidence is rendered almost certain by the fact that ecstasy is often succeeded by a "dark night of the soul"—a state of misery and intense dejection, bereft of joy and even hope, which indicates a lowered energy-content, and, for the time being, an emptied and exhausted personality. Ecstasy, in short, is the contemplative form of action, and the mystic now feels the loss of psychic energy which recently animated him and impelled him to rapture.

The soul, in fact, is like a lake which draws supplies from far and near, from the skies above and the hills around and the springs beneath. In its normal state it is far from full, and activity constantly tends to empty it by the expression of its energy ; but there are times, as in trance, when it brims like a pool whose level runs so high that the addition of a single drop will make it overflow.

And in ecstasy and rapture it seems actually to overflow—there is an excess of energy in the individual, the content of consciousness is too great and too over-charged with experience, for the ordinary machinery of the brain to deal with. Those who begin by perceiving more end by possessing more, but the time comes when they can no longer contain their possessions. Psychic personality has exceeded the normal and natural limits of the individual.

It may be true, then, that the mystic discovers reality within, but it is by no means the whole truth. He only discovers reality within so far as he has first perceived it and absorbed it from without. There follows a supreme moment of transcendent clearness and vision when he realises something of the treasure he has won. But it is too great for him to hold ; and whereas the ordinary man expresses his energy in action, the mystic expresses his in ecstasy.¹

¹ The epileptic also has his moment of transcendent clearness ; it

It is true that the contemplative has not always realised the mechanics of the process, and has regarded it as purely introspective. "Those who shut themselves up in the little heaven of their hearts," says St. Teresa, "lay their pipe right up to the fountain of God." The beauty of the phrase must not blind us to its inaccuracy; for mysticism reveals itself on analysis as not so much a shutting-up of the ego within itself, as the reaching-forth of a quickened personality to higher values without, a rejection of the local and an attunement of the individual with the universal. The forgotten preacher was nearer the truth who said to young William Booth, "Do you know that religion is something that comes to you from outside of you?" Religion is in fact the higher consciousness that comes from without; its only limitation is the measure and content of the receiving organism within.

Psychological Character of Ecstasy.—It is clear, then, that the full mystical experience implies the uprush of the whole overflowing personality, enlarged by its perceptions of the unknown without, and enriched by all the attendant and divergent but now harmonised ancestral strands within, into a unified consciousness—a condition so unusual and abnormal that it must disturb and for the time being overwhelm the ordinary physical and mental existence.¹ And during and generally after this experience, in which the whole and not merely the apex of personality which is ordinarily conscious is concerned, it necessarily follows that the self is capable of efforts which in its normal or undeveloped state occurs immediately before the seizure. (The phenomenon is admirably described by Dostoïevsky, himself an epileptic, in *The Idiot*). Here, as in the cases in the text, there seems an excess of energy of which the individual must rid himself.

Luciani holds that epilepsy is a disorder of the cerebral cortex; this can hardly be said of the mystic. But the epileptic has no controlling idea—it is merely an excess of useless energy, too great for the individual organism to control or utilise; he therefore has no ecstasy, merely a physical paroxysm.

This is probably also the explanation of those unhappy beings who were once thought to be possessed of devils.

¹ All the mystics are agreed upon the unification of the self which results from the concentration of the mind on the internal world and the purification of the will from the irrelevant external world. "The essence of purgation"—"the shedding of desire"—"is self simplification," says

oped state it would not attempt.¹ In the mystic, as in others where the process does not take religious form, the elevation of will and unification of personality give a new strength to the individual. He is not only a different, but a greater man than before.

The mystic process seems, therefore, on its internal and psychological side, to resolve itself into a development, a synthesis, and a unification of those fragmentary or multiple personalities which every human being contains, but which in most people lie latent, undiscovered, and perhaps even unsuspected within the individual. And this position is, I think, fully supported and authenticated by the study of all the available evidence.

But it is the essence of the mystic position that this absorption of psychic energy from without, and this integration and development of character within, enable him to transcend the ordinary limits of personality; and that this process gives access to, and eventually a direct revelation from, a new spiritual medium. In the early stages of experience, he discovers the saints and devils of orthodox religion; but in its later passages he claims to come into contact with a vast impersonal psychic force whose properties he can neither fully grasp nor intelligibly explain, but whose character leaves the percipient with no doubt whatever that this is God indeed. In Eckhart's noble phrase, he has seen behind the symbol to the truth.

This is a high but not necessarily an impossible claim, and it deserves respectful consideration.

Communion with Nature.—It is at once evident that the mystic is not the only man to experience these perceptions and emotions, and to feel himself attuned to a larger

Richard of St. Victor; in the mystical consciousness, states Edward Carpenter, "the perception seems to be one in which all the senses unite into one sense."

¹ This is true, even of the lower stages of abnormal presentations of personality, such as automatic writing. "I saw," says Madame Guyon, "that I was writing of things which I had never seen; and during the time of this manifestation I was given light to perceive that I had in me treasures of knowledge which I did not know that I possessed." This lady's treasures were not perhaps pure gold, but her general account of the emergence of these unconscious memories is accurate.

world ; for this overflow of soul, this sense of communion and union with the external infinite, has been possessed by many who lived alone with nature, but were in no sense professionally religious.

"Folks prattle that mysticism springs out of religion," said the naturalist Hudson. "On the contrary religion, in a great many, springs out of our natural mystical feeling, that oneness we may have with nature. I was never so sure of this, that is to say, I never had such a sense of oneness, as once on the (Sussex) Downs near Burlington Gap. It was a beautiful day, the sky was a deep wonderful blue, and before me was a great spread of viper's bugloss, such as I had seen on the pampas. It was so wonderful a sight that I *became* the blue of the sky and the bugloss of the air ; I didn't seem to walk, I just floated, floated !" ¹

Sir Martin Conway, who woke to the vision of beauty at sight of Snowdon, had the same feeling. "It matters not," he wrote, "how the birth of each into the eternal world comes to pass ; those who are chosen for the kingdom enter by one of countless gates, and thenceforward are free of a larger or smaller province. They have seen God. They may lead the most commonplace lives, but that is not their real life. They are initiated members of a secret brotherhood. They recognise one another, but pass unrecognised by the world for what they are." And elsewhere he defines this communion with nature as "a sense of freedom and a joy in ownership of the whole universe—emotions that best arise in the great clean places of the earth, where nothing lives and nothing grows, the great deserts and the wide snowfields." In other words, the eternal is most readily discovered when we are most free of the casual interruptions of the temporal series.

There is no lack of evidence. "I go to the hills," said the Arctic magician to Rasmussen, the explorer, "lie there a little, and hear the song of the hill spirits." ² This is the

¹ Hudson, like most naturalists, had no belief in immortality. But he wanted "to live a million years." He appears to have a mystic *mangue*.

² *People of the Polar North*.

This is the source of nature-mysticism ; perhaps also of the universal

primitive animistic form of Wordsworth's "Visions of the hills and souls of lonely places;" as Shabistari, the Persian, bears witness that "In the valley of peace the very bush will say to you, I am Allah."¹

This sense of oneness and union with nature and the universe, this feeling of an overflow of individual consciousness into the universal consciousness which at such moments we perceive, is probably not uncommon; particularly among those who live in the great wind-swept solitary places of the earth.² It is certainly not confined to the mystic, but it quite definitely supports and goes far to authenticate the truth of his report.

The feeling of union with nature is no doubt immediately subjective in character. But fundamentally it must be due to an excess of energy within the organism reflecting itself in an overcharged consciousness, and that excess has necessarily been derived from without. The distinction between individual and universal seems momentarily lost and obliterated in the synthesis and revelation of a larger external consciousness; the same experience of superlative exaltation which made Hudson feel he was floating in the air impelled St. Paul to confess he did not know whether he was in the body or out of it.³

The Mystic Consummation.—There remains one final step

belief in elemental spirits. In Christian and Mohammedan tradition these are pre-Adamite; the Malays have a legend that when God made man the spirit was so strong it rent the clay of the first model, and the fragments of the great failure became spirits of earth, sea and air. With the next clay model, God mixed some iron, and so achieved man.

¹ Cf. Moses' vision of the burning bush.

² It is possible that some primitive sensation of this kind originated the Stoic doctrine of the World-Soul, the precursor of the Holy Ghost of Christianity. Both are obviously attempts to express the idea of a universal consciousness in nature.

³ The ordinary man who is so happy that he "walks on air" is a familiar example of the most elementary stage of this exaltation. Levitation and ascension are its comparative and superlative.

There are many (not quite convincing) accounts of levitation in religious biography; but Bramwell Booth says that at holiness meetings of the Salvation Army he has seen "instances of levitation beyond all question—people lifted from their feet and moving forward through the air." (*Life of General Booth*).

There is no modern claim to ascension.

along the mystical pathway of reality, and only the greatest of the contemplatives claim to have achieved it—that in which the sense of communion and union with nature and the infinite is surpassed by the sublime feeling of communion and even of union with God. Here, too, as in the supreme moment of that lower physical road of sex which the mystic has for ever abandoned, the fundamental distinction between subject and object which is the essence of finite individuality is for the time being forgotten and obliterated in a higher and completer unity.

This is the summit of the mystic way; and in this culminating moment of spiritual experience the pilgrim of the infinite feels himself at last completely freed from the impressions and distractions of the external world, and wholly unified within himself. And this complete unification of all the divergent and often contradictory strands of ancestral personality and individual desire, so rarely accomplished and then only accomplished at the cost of so much suffering and effort, is the base on which is built the rhapsodic and unique feeling, not only of communion but of actual union with God. Only when the unit of personality is absolutely complete, and conscious of its completion, does it seem capable of those direct relations with the universal which it knows as union with God.

When this consummation is attained, the bounds of personality seem momentarily to be burst, and man feels himself as one not merely with finite nature, but with the infinite. In the splendid phrase of Eckhart, "I am as necessary to God as God is necessary to me. The eye with which I see God is the same eye with which God sees me. My eye and God's eye are one eye, one vision, one recognition, one love."

Mystical experience and philosophy are saturated with this ultimate unity of the universe, this high claim to essential identity between the consciousness of the individual and the consciousness of the universe, and its triumphal assertion of supremacy by the spiritual over the material as the fundamental reality and final meaning of things. "The

universe and I came into being together ; and I, and everything therein, are one," says Chuang Tzu. "Never the spirit was born—end and beginning are dreams," is the message of Bhagavad-gita. "In all things see but One, say One, know One," says Shabistari the Persian. "The ocean-deep soul universal, the unutterable wisdom" of Shinran Shonin finds echoes in the Stoic idea of a world-soul, in the teaching of Plotinus, Origen, Augustine, and Bruno that the whole universe is a living and conscious spiritual unity. This is the authentic cry of the mystic across the world and down the ages.¹

This confession of pure spirit and the spiritual unity of the universe may or may not be true. But if it is true, it may reasonably be asked why it has not had more effect on human thought ; for while it has influenced, it has certainly not moved the world very deeply.

The idea of a holy spirit was but vaguely conceived by the early Christians, and the third person of the Trinity is the most obscure figure of the New Testament and the least developed doctrine of the Church. Islam emphasises the unity rather than the spirituality, Buddhism the justice rather than the consciousness of God.

The cause, however, lies on the surface. The great religious contemplative, who lives apart and seeks the ultimate reality, is more conscious of the unity than the variety of things, and therefore turns to monotheism.² But the ordinary religious perception of men, like their ordinary mental perception, is more conscious of the variety than the unity of things ; and therefore they fall back on polytheism, the worship of saints and angels, and such minor or personal

¹ The poets are one with the mystics ; Cf. Dante's universal love that moves the sun and moon and all the stars ; Shakespeare, Spenser, and Shelley ; and Wordsworth's universal spirit that "rolls through all things." It is odd that Wordsworth should have pictured it as "dwelling in the light of setting suns" ; the almost invariable simile is the rising sun and the east. But Wordsworth lived on the West Coast, where sunset is more impressive than sunrise.

² Even here, however, we find the recurrent idea of a trinity in unity. Among the Chaldees, Heaven, world, water ; in Egypt Osiris, Isis, Horus ; in India, Brahma the Creator, Vishnu the Preserver, Siva the Destroyer ;

substitutes for God.¹ Human capacity being limited, we perceive the immediate and local rather than the ultimate and general; and the great religions of the world centre round the prophet who reveals, not the God who is revealed. And this is natural, because the man is near our measure, whereas God is immeasurable.

This ultimate spiritual reality, in fact, is too high for us. And this is to some extent true even of the mystic who is persuaded that he perceives it; he may find God, but he cannot explain what he has found.

It remains now to examine this high claim to union with the divine.

The Claim to Union Examined.—The mystic is an explorer—a seeker after God. But he seeks also, as indeed we all do, certainty and peace—the certainty without which there can be no peace. Admittedly he attains that certainty and peace.² But whether the vision which confers this certainty is really an experience of God, or merely an illusion of the mind, is for us as yet an open question.

Every founder and leader of religion obtains precisely this certainty—it is the rock on which he builds.³ And his Buddha, the Word, the Church; Father, Son and Holy Ghost; Beauty Truth, Goodness.

The continual recurrence of this idea suggests a real necessity of thought. It may correspond to the real division between the individual, the external world, and the medium that contains them both; or substance, stimulus, and the medium in which both exist.

¹ This is obviously true of the bulk of Christendom. Among the Mohammedans, says Tremearne (*The Ban of the Bori*), Allah is supposed to be the one God, above all, but it is the individual spirits which receive all the real attention. The Buddhists of Ceylon, says Skeat (*Malay Magic*) turn in time of sickness and danger, not to the consolations offered by Buddha, but to the propitiation of the demons feared and revered by their early progenitors. Similarly the Buddhists of Tibet (Waddell, *Lhasa*) still believe in the old man-eating devils of primitive times; as among the pagans of Borneo (Hose, *Pagan Tribes*) "A woman will break a bead of great value when prayers for the restoration to health of a child remain unanswered"—the same idea of propitiating a possibly malignant power that survives all over Europe. The idea of a beneficent supreme being, says Hose truly, is a conception that may be rapidly and easily arrived at under favourable conditions, and as rapidly fall into neglect with change of social conditions.

² Cf. Pascal, who in his ecstasy found "Certitude, certitude, sentiment, joy, peace." The double repetition is instructive.

³ Brigham Young, for example, was as certain of his position as St. Augustine. And so, it may be added, was Torquemada.

followers obtain it in slightly less degree ; with the originator it is actual living experience, with the imitator it is usually—not always—experience at secondhand. The pioneer discovers for himself ; those who come after often discover what they are told they will find.

It is for us to ascertain whether these reports bear a reasonable probability of truth.

A.—It is fundamental in the mystical position that the access and discovery of the unseen world are through emotion and intuition, not intellect and reason. The mystic is therefore bound to claim that emotion and intuition are in this respect higher and more efficient guides than intellect and reason. He suggests that the one leads directly to God, in whom the contemplative may become absorbed and to whom for one brief moment he may be united ; the other is an instrument of limited and local utility.

Intellect and reason, says the mystic, are of matter and the phenomenal world, intuition and emotion are ultimately of the spirit and the real world. The language is old-fashioned, but the distinction has a tangible meaning.

It is the common standpoint of every mystic, Buddhist and Moslem as well as Christian, that where intellect fails emotion may succeed. Mysticism, says Récéjac, “ believes that by the way of Love and Will, it reaches a point which intellect alone is unable to attain. It is the heart and never the reason which leads us to the Absolute.” Ruysbroeck makes the same point : “ When Love has carried us above all things we receive in peace the incomprehensible Light, enfolding us and penetrating us. What is this Light, if not a contemplation of the Infinite, and an intuition of Eternity ? We behold that which we are, and we are that which we behold ; because our being, without losing anything of its own personality, is united with the Divine Truth.”

Plotinus uses the same language. “ In the vision of God, what sees is not our reason, but something prior and superior to our reason. He who sees does not properly see, does not

distinguish or imagine two things. He changes, he ceases, to be himself, preserves nothing of himself. Absorbed with God, he makes but one in Him, like a centre of a circle coinciding with another circle.”¹

The claim is a difficult one. But taken simply by itself it is not, I think, improbable or unscientific. For it is the fact that experience is always first perceived as feeling or emotion, before it is mentally apprehended as knowledge, and long before it is abstracted into a philosophy. On that account faith founded on experience invariably runs ahead of reason. Reason is not the source, but the judge of experience.

- We must, then, give tentative and provisional assent to this first claim of the mystic to exalt emotional experience over intellect and reason.

But the acceptance is subject to a drastic limitation. The experience on which faith establishes itself may be mistaken or misapprehended; all faith is instinct in the making, and beliefs and instincts that are wrongly founded have to be unmade and discarded. And so long as the universe is held to be wholly rational—and our belief in its rationality is affirmed by all physical evidence and tested mental experience—reason must ultimately be competent to weigh all experience, from the merely sensory perceptions of the lower animals to those sublime heights of mystical emotion in which the seer claims to receive divine illumination. God must be a rational God, or the world would not be a rational world, and we must, therefore, hold that while emotion may explore, reason alone can annex and administer the new territories.

Emotion assures the mystic that his vision of God is true. But emotion also assured him that his visions of saints and angels were true. Yet these have been disputed and denied, even by other mystics on purely rational grounds, and shown to be hallucination or misinterpretation.

How then can he rely on his vision of God? When

¹“The intuitive soul,” says Hegel, who in this matter echoes the mystics, “oversteps the conditions of time and space; it beholds things remote, things long past and things to come.”

emotion thus misleads on the lower ground, how should it be more trustworthy on the supreme heights? ¹

Doubts of its Reality.—Even among the great mystics, the reality of this final experience has been questioned. It is true that St. Augustine, and others of less critical and metaphysical cast of mind—like St. Bernard and St. Teresa—believe that the soul can actually see, and be momentarily united with God. But the writer of the mystical Fourth Gospel says bluntly, “No man hath seen God at any time.” And St. John of the Cross, in whom mystic, poet, and philosopher were combined, is more cautious but not less definite. “The communication and sense of God’s presence, however great they may be, and the most sublime and profound knowledge of God which the soul may have in this life, are not God essentially, neither have they any affinity with Him, for in very truth He is still hidden from the soul.

. . . We are not to imagine that the soul sees God essentially and clearly because it has so deep a sense of Him; for this is only a strong and abundant communication from Him, a glimmering light of what He is Himself.”

Ruysbroek is equally doubtful. “Even if the divine union be effected, we must understand that God and the creature can never be confounded. Union can never become confusion. The distinction remains for ever inviolable.”

And Eckhart’s sober judgment of ecstatic experience gives ultimately the same verdict. “It is of the very essence of the soul that she is powerless to plumb the depths of the creator; there is left in the soul a little point where it turns back upon itself, and finds itself, and knows itself to be a creation.”

In the view of these authorities, then, ecstasy and rapture may be communion, but hardly union, with God. The summit of the mystic way is conceivably as far below the

¹ On this matter Caird has said the last word. “If intensity of emotion proves reality, or if religions are to be graduated according to the liveliness of the feelings excited in the breast of the worshipper, the purest Christian faith will have no advantage, not only over the most corrupt forms of the same religion, but over any other religion down to the grossest nature-worship or fetichism.” *Philosophy of Religion*.

highest consciousness as it is manifestly above the lowest ; and they hold that from that summit level may be seen, but never reached, the distant prospect of a greater altitude unattainable by finite flesh, where the fulness of wholly spiritual being is not limited by sense or sex or personality at all. There for them is the real presence of the eternal energy which is God, conscious but impersonal, at once the source and destiny of that little troubled stream in time which to us is life.

We may leave this question open for the time while we examine a further claim.

B. The mystic constantly complains that human language cannot convey his experiences ; even Dante, a supreme master of words, was at a loss to describe the splendour of his visions.

The Mystic Deficient in Expression.—The claim may seem at first sight a strange one. Expression is the natural outlet for human experience ; and the mystic, who perceives and receives more than other men, would appear on that ground likely to express himself more fully. Yet in fact he is usually deficient, and often consciously deficient, in expression. " Those who know," says the Chinese mystic, Lao-tse, " tell it not ; those who tell it, do not know."

But the reasons for this apparent contradiction are self-evident. The prolific writer is generally superficial ; the difficulty of the contemplative is partly due to the depths he has plumbed. And the statement that speech is inadequate for these occasions must be unreservedly admitted. Language is a consequence of physical and social needs, and therefore a too limited medium for that which transcends those needs. Moreover, speech is primarily a concrete and only derivatively an abstract medium, and its range is therefore as yet rather contracted.

Probably every great poet is conscious of the gap between conception and execution, between what he wants to express and what he actually succeeds in putting on paper.¹ But

* ¹ Cf. Shelley. " When composition begins, inspiration is already on the decline, and the most glorious poetry that has ever been communicated

the mystic has a still more difficult task, for he has to convey his conception of the infinite and eternal in terms of the finite and temporal, and to define in words framed for concrete purposes his idea of ultimate abstractions.¹

The literature of mysticism is nevertheless large, and it ranges from some of the noblest utterances of human thought to a confused, incoherent, and often trivial piety, which at times sinks nearly to the level of gibberish. It has obviously been produced both by men of extraordinary intellectual ability, and also by men of purely emotional type whose intellectual capacity has not been more and was in many cases less than the average of their time. This, of course, merely proves that mystical perception is not uncommon. As with other forms of genius, emotional perception is frequent; its intellectual expression is rare.

The most extreme rationalist would hesitate before he denied the intellectual power of St. Paul, Plotinus, Augustine, and Dante. But even the ardent mystic is not quite happy with the more erotic visions of St. Catherine, the transports of Madame Guyon, or the inspiration which Jacob Boehme claimed for his doctrine of the Birth of the Four Elements and the Sulphurean Death.² And a whole tribe of minor mystics have been relegated to deserved oblivion; for in this, as in other spheres, it is only the fittest who survive.³

to the world, is probably a feeble shadow of the original conceptions of the poet."

¹ "I cannot write more," said St. Thomas Aquinas after a vision, "for everything I have written appears to me worthless compared with what I have seen, and what has been revealed to me."

² Boehme also claims: "I saw the birth of the Holy Trinity, the Origin and first state of the world and of all creatures." A stupendous but incredible vision.

³ The question incidentally arises whether the mystic faculty is a diminished survival of a psychic power at one time common in the human race, or should be regarded as a nascent perception, rarely manifested as yet, and perhaps far from fully developed even when actively present.

It is a universal rule that embryo faculties which are not developed tend to atrophy. There was a time when our remote amphibian ancestors could have attained physical flight as a primary means of locomotion, but this is now for ever impossible. The contemplative faculty in the higher sense is confined to man, and from this the state of consciousness that we call mysticism is a derivative; it seems therefore to be a nascent faculty, not a decaying survival. In this connection it is significant that mysticism, like other forms of genius, has been strongest in nations at the summit of

But it must be said at once that, even in their most inspired form, the mystics do not appear to transcend the highest capacity of the human mind ; for it will hardly be contended that the works of the great contemplatives are superior as literature to Sophocles and Shakespeare, Æschylus and Milton.

Nor can it be suggested that these special sources of information saved them from the blunders of their contemporaries. The God whom they consulted failed to reveal the physical properties of the universe which they ascribed to Him ; or Christ and St. Paul would not have echoed the apocalyptic expectations of their times, and Dante would have constructed a very different hell and heaven.¹

In these matters, then, the intuition of the mystics failed where the intellect of Copernicus, Kepler, Newton and Lyell succeeded.

But if that claim fails, one of the major positions of the mystics at once becomes untenable. The lower claim, to an enlargement, a deepening, and a unification of the self, succeeds. The higher, to active union and communion with God, has still to be determined. But the middle claim, that the emotional intuition of the mystic makes him the authentic recipient and the immediate bearer of a direct and singular revelation, must be abandoned.

All men, or almost all men, are from time to time conscious of the existence of God, but all men interpret the God they find differently. If we all find the God we seek, it is because God is everywhere and in everything ; ² even this phenomenal

their power ; particularly in Spain, France, and Italy. It is not a phenomenon of youth or decay, but of maturity.

¹ Similarly with prophecy. The " Everlasting Gospel " of the Spiritual Franciscans, a book published in 1254, attained immense popularity. It divided all history into three periods—the Age of the Father, from the Creation to the Incarnation ; of the Son, from the Incarnation to 1254 ; of the Holy Ghost, an age of universal peace and love, to begin in 1260.

² It may be said, of course, that our discovery of God is only a discovery of self, a worship of the individual within, and that each man's God is but his own soul. In many cases, no doubt, this may be true. But in these crucial instances of the great mystics there is evidently much more to the experience. The kingdom of their heaven may appear in consciousness within, but the energy of which it is composed comes from without, and is seized within.

* world of our perception and immediate knowledge is the finite and visible aspect of infinite God. But those who have been persuaded that they have directly heard the voice of God have deceived themselves ; this is their interpretation of the evidence, but the interpretation will not stand.

There are no such messages, nor can there be, from the sanctuary. The silence of God is supreme. And in the very nature of things, I think, the silence of a conscious God must be universal. For speech, like knowledge, is necessarily finite ; whereas the infinite wisdom of a universal consciousness is, and must be, silent.

The strength of the mystic, then, is that he has discovered this universal consciousness. But his weakness is that he presumes to interpret it ; and in fact he misinterprets it.

C. But that is by no means the conclusion of the whole matter. Nobody can give out more energy than he gets in, but in the long run everybody must give out exactly what he gets in. If the mystic, then, is deficient in one form of expression, he must either be excessive in another, or we shall be forced to conclude that he absorbs and contains less, and not more, energy than other men.

The human organism is a machine for the capture and expression of energy ; income and expenditure help to regulate and balance each other. Since the mystic's life contains little muscular action, he requires little solid food ; his output of physical energy is on a lower scale than the rest of us.¹ But since his life is in the main one of contemplation, and therefore of absorption, he must tend to accumulate mental energy ; in what way, then, does he accumulate and expend it ?

Illumination and the Mystic Way : Transfiguration.—I suppose that nobody can read much mystical literature without observing its constant pre-occupation with the subject of light. Religious prose and poetry are both saturated with allusions to light. The mystic shuns the world of sound, because its irregular intrusions interrupt his

¹ The reduction of physical work to a minimum also makes it easier to understand why the mystic requires so little sleep.

thought ; but it is obvious that he is attracted by light and the idea of light, that he seeks light and the brightness of light.

There is extraordinary significance in these continual and sustained references to light. To the mystic God is not merely Love, but Light—the one true Light, the Light of the World, the Light that lighteth every man that cometh into the world, the Light that lightens our darkness. “ Arise, shine,” says the great invocation of Isaiah, in words that would have been understood by every worshipper of a Sun God or a God of Light. “ Hail, O Light of God, the shadowless divinity,” cries Shabistari, the Persian mystic ; for “ God is Light and the source of light,” says Zoroaster. Churches and monasteries, even the waiting corpse in the churchyard, both face the rising sun ; for “ Light,” says Jamblichus, “ is the simplicity, the penetration, and the ubiquity of God.”

Much of this may be discounted as natural imagery or symbolism, the poetry of religion or the religion of poetry ; yet poets sing only where they love. But not all the mystic references to light can be quite so easily dismissed. There is a stage in the mystic ascent when illumination comes suddenly to the pilgrim of another world ; a light breaks in upon him like a blinding flash. This is what Hildegard calls in the passage already quoted, the “ Living Light itself ” ; and there are indications that this mystic light has a physical as well as psychological foundation. It has been explained as a nervous disease, and no doubt in some cases that is true. But nobody who reads carefully the accounts which the great mystics give of their experiences can be quite satisfied that every case of illumination is to be ascribed to symbolism or sickness.

Let us put this matter to the test of contrasted quotations. Wordsworth’s “ light that never was on sea or land ” is obviously not intended to be taken literally ; nor, I think, Plato, when he writes : “ Concerning ultimate truth there is not nor shall be any treatise written by me. Only after long arduous conversance with the matter itself, a light

suddenly breaks upon the soul, as from a kindled flame, and, once born, keeps alive of itself. Only to a few men is the exposition of these things of any profit, and they only need a slight indication of them for their discovery." This is manifestly the natural language of symbolism.

Dionysius, on the other hand, speaks of that "marvellous darkness which shines with rays of splendour and which, invisible and intangible, inundates with its fires the dazzled and sanctified soul." This superb rhetoric of paradox—itsself perhaps a little too dazzling for sober taste—is more doubtful. It has the true mystical ring, but it can be construed without violence as symbolic.

The case is very different with St. Paul. His own accounts of the vision on the road to Damascus are emphatic; the light he saw was "above the brightness of the sun"; and again, "I could not see for the glory of that light." Paul did not disdain the use of metaphor to make his meaning clear, but these phrases are evidently intended as a definite description of a definite fact of personal experience.

It is the same with St. Teresa, who saw "a light which knows no night; in comparison with it every other light is something artificial." This is not the language of symbolism or sickness, but of ordinary everyday use. It is intended to describe a fact, and it does describe a fact. But what fact?

Gibbon, with his usual ready sneer, dismisses the mystic light as "the product of an empty stomach and an empty brain." The evidence makes such summary jurisdiction impossible; we are faced here by a more complex series of phenomena.

We have already seen that light is directly or indirectly the source of all finite consciousness; unlike life, it is extra-terrestrial in origin, the most potent stimulus that exists, and the highest known form of energy. The parallel between the mystical pre-occupation with light and the mystical increase of consciousness is therefore extraordinarily significant; life to him is little, but light and consciousness are everything.

And at this point we are also driven to consider the accounts, familiar in religious history, of transfiguration, haloes, and similar radiations attributed to the saints in moments of exaltation. It is difficult to accept them as they stand, and as difficult to reject them entirely.

Already there has been spiritual illumination within; a mass of evidence suggests there may also be a form of physical illumination without. We all emit an aura of invisible light, but with the enraptured saint a visible halo appears to surround the head, or the face becomes transfigured.¹ If these things are true, they seem (like apparitions) to be an excess of psychic energy which occasionally becomes physically evident as it leaves the individual.

The mystic light, illumination, and transfiguration are seen only at some triumphant crisis of the soul. But this culmination of experience is clearly the final stage of a long previous process of absorption of energy and spiritual growth, and it is followed by the "dark night of the soul," when the questing heart seeks in vain the splendour it has known, now made more brilliant by the contrast of its loss. In this subsequent declension, the organism seems exhausted by the effort it has made; the memory and the idea survive, but energy is lacking to pursue it for the time. The soul must wait till it is re-charged with vital strength.

These indications suggest therefore that the over-full consciousness has emptied itself; its content has diminished, it has discharged its excess emotion, and expressed itself in an ecstasy, not an epic. All emotional exaltation must ultimately lead to action; and ecstasy and rapture are the normal form of mystical action and expression.

¹ Cf., the account of the transfiguration of St. Francis of Sales. "His soul was so abundantly filled by divine love that it overflowed." The evidence for transfiguration appears unchallengeable; I have myself seen a case which nearly approached it.

The evidence for haloes is less satisfactory; it is perhaps significant that Buddhist as well as Christian saints are depicted with the aura. But the emission of sparks or luminous rays (presumably electrical) seems well attested and is perfectly credible. The "tongues of fire" on the heads of the apostles was probably a similar emanation; other cases have been reported.

The evidence, then, seems to show that the mystic light must be admitted as a genuine phenomenon ; the experience of illumination is not imaginary, but real, with a physical basis as well as psychological content. Now the mystic absorbs as much energy as the rest of us, but he does not expend it in the ordinary forms of action ; and this energy appears to accumulate within the organism until it produces an excess of emotional tension which is compelled thus to relieve itself, like the lightning discharge from a thunderbolt-cloud, of too great a stress.

In the majority of cases this relief takes the psychic form of sudden illumination or a flash of light, because vision is the dominant sense ; in a minority it functions as a sound or voice, when the relief of tension expresses itself through the auditive channels. And in a small number, where the psychic personality is unusually potent, the discharge affects both visual and auditive channels, and the flash of light is accompanied by the mystic voice. In many cases the discharge is followed by a return to normal consciousness ; in others, as with St. Paul, the emotional discharge appears to be excessive, and the organism is emptied and for the time exhausted of its vital energy.

Consciousness as we know it is a unit formed by a balance between the amount of stimulus received and the organism that receives it. When too little stimulus is absorbed, the organism droops, decays, and ultimately dies ; when too much, the consequent excess of consciousness causes emotional exaltation, ecstasy, illumination, discharge, and a return to normal content. The ordinary active man, who expends the bulk of his surplus energy as he goes along, knows neither trance nor rapture in normal life ; but the mystic, who accumulates energy that he does not expend in action, discovers that this excess of energy produces ecstasy and illumination.

The evidence for the mystic light and transfiguration fulfils exactly these conditions. But it also suggests that the mystical perception that consciousness comes from without, that it exists potentially throughout the universe,

and not merely in some local and transitory organisms on this planet, must be regarded as valid.

But if that is so, one of the major contentions of mystic philosophy must be conceded. The individual may be mistaken in the detail of his interpretation, but he seems right in the assumption that the universe in which we live is a spiritual universe, instinct with consciousness.

The Claim to Union ; its Limited Validity.—The rather tedious but perhaps not unprofitable analysis of these matters has now cleared the way for a discussion of the mystical claim to communion, and momentary but actual union, with God. The question whether this claim is, or can be justified, is indeed extraordinarily difficult, and may well seem insoluble. It is true that an experience so vivid leaves no doubt in the mind of the recipient ; the trouble is that an experience so strange and rare must leave doubt in other minds. Yet the answer is crucial to any philosophy.

This is the supreme claim of the religious consciousness, and it must be admitted that it seems at first sight wholly inadmissible.

In the first place, the living organism is a machine for the capture of energy. The consciousness that animates it is directly observant of other physical mechanisms, but it is not directly aware of their consciousness, which it can judge only indirectly by their actions and behaviour. How then, it will be asked, can the living organism be directly aware of the consciousness of God ?

In the second place, while it is true that all consciousness is fundamentally of the same nature, it is also certain that not all consciousness exists on the same level. Life is always a quantitative mechanism, whereas consciousness seems ultimately a qualitative spirit. But the consciousness which the living organism can accommodate is limited by its physical and mental competence, and therefore individual consciousness is evidently quantitative as well as qualitative in character ; for the limitation in quantity necessarily limits and lowers its quality. Human consciousness differs both in quantity and quality from that of the lower animals

and vegetation ; we cannot therefore suppose it to be in any sense on an equality with the consciousness of God.

In the third place, the amount of consciousness which the individual can contain is conditioned by the capacity of the organism ; and any excess must be expelled and discharged, either in action or ecstasy. Now the relation of a limited to an unlimited consciousness must at best be that of an inferior to a superior.

I doubt if these arguments can be rejected or ignored.

Yet we have seen the possibility, perhaps even the probability, that an external consciousness exists ; that it is a general, and in that case a united consciousness of the universe. And we have also seen that any form of consciousness can have relations, however limited and local, at the point of contact with any other form of consciousness. In that event we can have contact and communion, though not necessarily union, with God ; for it is the very nature of consciousness to be aware, to recognise, and thus to have relations with those other forms of consciousness of whose existence it becomes aware.

Now those relations, if they are possible at all, must take the form of a communion between finite subject and infinite object ; perhaps even a union between them, if we use the word in the lesser sense, in which a man may be said to be united to a book he is reading. And it is at this crucial point that mystical experience coincides with and confirms philosophical speculation. For we have already seen that all consciousness is necessarily Here and Now. Our own finite consciousness is always of Here and Now. But the universal awareness of God must also be Here and Now. And in the supreme exaltation of the contemplative mind, in this highest conceivable flight of the seeker after God, this point of conscious contact between this Here and Now of Time and the Here and Now of Eternity seems, at least to the subjective percipient, to be occasionally established and momentarily maintained.

Now this sense of contact and communion which the mystic confesses takes exactly the character which we

should expect of such a relation—it is occasional and abnormal, confined to the heights of emotional tension, and an experience which it is impossible for the percipient either to maintain for long or to interpret satisfactorily.

But it has, I think, become clear that the mystic perceives the spiritual aspect of the world in a way that other men do not; and we have seen that this is the way of all genius, that it perceives more than others, and interprets its perceptions differently. One man sees a sea-fog following the sun, another reports that the spirit of God moves on the face of the waters. Who shall say which is right?

Yet obviously there must come a limit to the mystical power of perception and absorption; and the saturation point of the organism is reached when the overcharged consciousness relieves itself in ecstasy. How much it can contain in any given instance depends, of course, on individual capacity; a Boehme perceives little because he has little capacity, a Plotinus or Augustine perceives much.

But we have also seen that the human organism cannot increase to more than about six times its normal potentiality in any one direction.¹ If that is true of spiritual as of other experience—and there is no reason to suppose it is not—then the mystic is as great in his field, but hardly greater, than other forms of genius in their own particular work. And that presumption is not, I think, refuted by the analysis of the extent and limitations of mystical achievement which has been made in these pages.

But in that case the claim to communion with God must be limited to the extent of that capacity; while the claim to full union with God, and still more the claim that the mystic becomes God, obviously fails. The cup of human consciousness may fill and overflow, but it cannot contain the sea.

And indeed the claim that the mystic becomes united to God, still more the claim that he becomes God is, as it stands, preposterous and ridiculous. In the sense that we are part of the universe, and the universe is part of God, the

¹ Chapter 2, Section 1;

claim to union must of course be conceded ; but this is mere playing with words. The real meaning of the claim is that the contemplative becomes aware of a conscious God ; and, since consciousness is itself absorption and union, he becomes united to God to the extent to which he absorbs and is conscious of God. The extent of his consciousness of God gives him his idea of God, but his idea is itself finite and human rather than divine, since God is above ideas.

Every man finds the God he seeks ; we express the God we find in the image of our desire. The man of action envisages a God of action, the moralist an ethical deity, the patriot a super-patriot, and the philosopher a God of thought.

The mystic, like the rest, assumes first the character of the God whom he sets out to discover. Like the artist, he can only understand because he loves. But because he is a lover who has denied himself of human love, the divinity of his desire becomes a God of Love.

But the gods whom we thus create are not a first cause but a final consequence. Those who seek find, but they do not always understand what they find. And the true God is something other than this.

And at best perhaps the mystical seeker after reality can do little more than stand, like Newton, on the shore of a great ocean of undiscovered truth ; he may see the horizon, but the horizon itself depends on where he stands, and he knows that the horizon which is the end for him is but the beginning of that which is for ever hid. For even though he achieves communion and union with God, that communion and union can only be upon his own level of existence. We can never fully perceive, and can therefore never hope to understand the essential reality ; these things are as far beyond human capacity as the most distant star is beyond our reach.

These limitations may be admitted, and must, I think, be admitted, as a heavy subtraction from the records, the amazingly varied and often contradictory records, of religious experience.

But when I ask myself, as a man of essentially sceptical

mind to whom suspension of judgment on these grave matters presents neither difficulty nor mental discomfort, whether it be possible to dismiss as illusory and utterly mistaken the entire testimony of this great cloud of witnesses in all ages and almost every country to the reality of religious experience: I answer without hesitation that it is more difficult to dismiss these records than to accept them, not indeed as true or divinely inspired, but as a basis for investigation and examination of the greater world beyond the senses. The interpretation of these experiences manifestly presents great difficulties. But we are not, I think entitled to regard them as illusory or wholly imaginary.

And if I were to use the physical simile which first occurs to me, I should compare it to the belief—once universal, and still largely prevalent among the ignorant—that the sun moves round the earth. We know that that belief was wrong, both in its assumption that this planet is flat and stationary, and that the sun moves round a flat and static world. But it was not wrong in its assumption that both sun and earth have a real existence and connection; it was merely wrong in its account of their mutual properties and relations. The perception was mainly right. The deduction was mainly wrong.

In the same way, religious perception was not wrong in its primary assumption of a conscious and essentially spiritual power beyond itself which, like the sun, is the source of light and life; or its belief that man, like the earth, absorbs and reflects that light. It was merely wrong in its deductions from those perceptions, and its account of the mutual relations between what were defined as the spiritual and material worlds.

The distinction was natural and convenient but misleading. In the first place, the words suggest a dualism derived from outworn philosophic theories, and perpetuate an assumption no longer tenable. The distinction between material and spiritual is as real—and as unreal—as that between visible and invisible, or temporal and eternal. The one is merely a finite portion, a series of local and inert

• singularities of great specific gravity, selected by our senses from the infinite entirety of the other ; the beauty of this visible world is not so much the pale shadow of the invisible world as a real fragment of its eternal and harmonic beauty.¹ We live in a spiritual universe, of which we know directly only that minor section which is discoverable by the senses as the material world. Of the rest, we perceive dimly and indirectly some little part ; and we misapprehend the detail of our perception.

The ultimate nature of all consciousness is one, but not every form of consciousness realises its unity, albeit on a lower level, with the universal. Realisation and interpretation both depend on the efficacy of the mental instrument of the percipient ; but whether it is small or large, this perception is " the delivery of those who through fear of death were all their life subject to bondage." And this, as we have seen, is the effect of all mystical perception, and the secret of all mystical strength ; " for them death's noose is broken."

It was suggested in an earlier chapter that God might be regarded as absolute motion ; while organic life is obviously a localised form of relative motion. If there is any truth in that, it seems clear that this relative local motion, which within certain limits the living organism can vary as it will, may from time to time attain partial contact or conscious communion with this absolute universal motion far above its level ; as it obviously has continual contact with the slower and more material forms of motion below its level.

Mostly it will symbolise these experiences along the lines of current thought, and thus retain something of the tem-

¹ Some, but by no means all, of the mystics have realised this. To St. Augustine, as to Isaiah, the whole earth was full of the glory of the Lord, and the splendour of the universe was the very visible finger of God. Plotinus would probably have assented, but hardly St. Paul, who was more conscious of the suffering than the beauty of nature. And others of the mystics, particularly the Spanish puritans, held the beauty of nature a hindrance or a dangerous delusion ; while Blake, still more extreme, remarks that " whoever believes in nature disbelieves in God ; for nature is the work of the devil "—an amazing doctrine for an artist.

In these cases the quest of the unseen led naturally to a depreciation of the seen ; it is only the essentially richer nature of a Francis of Assisi that can love both temporal and eternal beauty.

poral, the finite, the physical, and the personal in its interpretation ; but there are moments—as when St. Augustine, in “ the flash of one hurried gaze, saw That Which Is,” or St. Teresa “ saw God in a Point,” or in the high ecstasy of Plotinus—when even symbols become superfluous, and the translation or interpretation of the vision is lost in direct understanding.

And it is at least possible that in these rare moments of supreme exaltation the human consciousness may, for the fraction of an instant, almost attain this absolute motion which is above all movement. But not, I think, quite achieve it ; for to do so would be to touch that which is above life and beyond death, and to cross that line between the temporal and the eternal from which none may return and live.

The human will can do no more ; for it has nearly burst these finite bonds of space and time to which the limits of perception confine this current consciousness, and almost touched the infinite and eternal. Nor can it maintain this height for long. This mortal grasp slips from the sublime summit it has nearly reached ; the vision of the known fades again into the unknown ; and the seer emerges, at once strengthened and exhausted, by this supreme flight of the soul. What we see through a glass darkly, he has seen almost face to face ; what we only conjecture, he has nearly proved by direct experience. Henceforth there can be no doubts ; the individual is now aware of itself no longer as an isolated consciousness in an unconscious world, but suddenly in a flash of splendid insight almost into the heart of things, realises that it is an isolated fragment of relative and local consciousness in an infinite universe of absolute consciousness.

Mystical experience, then, at its highest, is not, I think illusion, but the part perception of a greater reality. For one brief moment the curtain of the senses has been swept aside and the veil of Isis lifted ; this is the beatific vision that makes all things new.

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